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GEOGRAPHY of JAPAN



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GEOGRAPHY OF JAPAN

Section I : General Geography

I. DEFINITION AND POSITION OF JAPAN PROPER

A. Japan Proper, as defined by SCAP Memoranda to the Japanese Government, 29 Jan and 23 March 1946, consists of four islands: Hokkaidō, Honshū, Shikoku, and Kyūshū, and approximately 1,000 small islands scattered in the adjacent seas.

1. Islands and Island Groups included in Japan Proper:

a. Sado-ga-shima	( 佐渡島 )
b. Iki and Tsushima	( 壱岐・対馬 )
c. Okushiri-tō, Rebun-tō, Rijiri-tō	( 奥尻島, 礼文島 ) ( 利尻島 )
d. Izu Group, including Sofu-gan	( 伊豆群島 )
e. Oki-no-shima	( 隐岐島 )
f. Satsunan-shotō north of latitude 30 degrees N.	( 薩南諸島 )

2. Islands and Island Groups excluded from Japan Proper

a. Utsuryo-tō, Take-shima, Saishu-tō
b. Satsunan-shotō south of latitude 30 degrees N. including Kuchino-shima
c. Ogasawara-gunto
d. Iwo jima-rettō
e. Chishima-rettō
f. Shikotan-tō
g. All other outlying Pacific islands

B. The latitudinal spread (30° to 45°30' N) is comparable to that from Florida to Maine.

1. Climatic consequence: Subtropical in southern Kyūshū to cold winter and mild summer in Hokkaidō.

2. Setting:

a. Land

- (1) North of Hokkaidō: Karafuto and Sakhalin
- (2) NW of Hokkaido: Chishima-rettō
- (3) South and SW of Kyūshū: Nansei-shotō

b. Waters

- (1) East of Japan Proper: Pacific Ocean
- (2) West of Japan Proper: Japan Sea
- (3) West and SW of Kyūshū: East China Sea
- (4) South of Japan Proper: Philippine Sea

## II. SURROUNDING WATERS

A. Deep water is comparatively nearer to the shore around the islands. Single exception is the sea off northern Kyūshū and southwestern Honshū.

B. Japan lies at the zone of convergence of two water masses, the cold water of northwestern Pacific, and the warm-surfaced mass known as the Kuroshio from the south.

1. The Kuroshio moves slowly northward from the equator and is divided at the southern point of Kyūshū where one branch washes the western shores of Kyūshū and the main mass moves eastward along the southern shores of Honshū. Late summer temperature averages 82 degrees; late winter temperature, 68 degrees.
2. Japan current is met by cold waters off northern Honshū, known as the Oyashio on the Pacific side. This water has lower salinity than the Kuroshio, and the temperature rarely rises above 65 degrees, even in summer. Winter temperatures may approach freezing point.

### C. Effects of Water Masses

1. Diversified climate in the northern and southern parts of Japan where the Kuroshio favors mild winter and heavy

precipitation for Honshū, Shikoku, and Kyūshū, while the Oyashiwo intensifies Hokkaidō's severe winter and heavy snow.

2. Great variety and abundance of marine life.

III. AREA AND DISTANCES

A. Area of Japan Proper: About 147,000 square miles, or nearly the size of the state of Montana; smaller than California.

B. See Plate 1 for distances.

IV. LAND FORMS

A. General land-form pattern of Japan:

1. A thick core of moderately rugged hill land and high mountains containing numerous inter-montane basins, with a narrow and discontinuous border of terraces and delta-fans.
2. About 75 to 80% of the area is hill or mountain land. Many volcanic cones, such as Mt. Fuji (12,389 ft.), are conspicuous topographic features.
3. The arable lands of Japan which constitute only 15.5% of the whole lie between the ranges and the coasts, along the stream banks, and up the slopes as far as cultivation is possible. (The productive area of Japan Proper is said to be equal in size to the state of West Virginia.)
4. The largest lowland (about 3.5 million acres) is the Kwantō-heiya. The coastal plains rarely extend more than 30 miles inland.
5. The rivers are short, swift, and shallow; little suited for navigation, but important for the purpose of irrigation and as a source of hydroelectric power.
6. The west coast is less indented than the east coast. The important ports are all on the Pacific side.

B. Possibilities of increasing the arable lands:

1. Difficult to increase further the proportion of arable land in Japan.
2. Reclamation and irrigation are being carried on, but little land of any value gained. Whatever arable land is added is

taken away by houses, factories, and railway sites.

3. It is said that Japan Proper has possibilities of adding some 2 million hectares of arable land, but the difficulties involved in the undertaking preclude the possibilities.

#### C. Earthquakes and Tidal Waves:

1. The high mountains of Japan are in close juxtaposition with one of the great ocean deeps. The principal Japanese earthquakes are associated with the resulting line of weakness; the seismic foci are associated with the outer side of the Japanese arc.
2. The regions exposed to the Pacific Ocean experience 1,500 sensible shocks every year.
3. Many of the disturbances take place under the sea, so fatalities from tidal waves frequently exceed death from earthquakes.
4. Major earthquakes are not caused by volcanic eruption, but from earth movements.

#### V. CLIMATE

- A. A large part of Japan lies in subtropical latitudes with abundant climatic energy and potentialities for plant growth.
- B. The summer season is generally sultry and oppressive.
- C. Throughout the winter months, winds in Japan prevail from northwest; in summer, from the southeast.
- D. Japan is humid; no section suffers from a yearly or seasonal deficiency of rain. Two rainfall maxima, one in June (Bai-u) and one in September.
  1. Three regions of heavier than normal precipitation (80-120 inches):
    - a. The Pacific side of Japan Proper from Kyūshū to Izu-hantō.
    - b. The Japan Sea side north of latitude 35 or 36 degrees to about Akita.
    - c. Hida-kōchi in Chūbu-chihō

2. Four regions of less than normal precipitation (40-50 inches).

- a. A large part of Hokkaidō, especially in the eastern region.
- b. The basins of Fossa Magna in central Honshū
- c. The Setonaikai borderlands
- d. The eastern and northern sections of north Honshū

E. The regional climates.

1. Hokkaidō:

- a. Climatically resembles the northeastern part of New England and Maritime Provinces of Canada.
- b. Summer-short and cool, the average for the warmest month usually below 70 degrees.
  - (1) Eastern and southeastern littoral particularly cool in summer (below 65 degrees). Summer fog prevalent.
  - (2) Sapporo region mean temperature for August is 80 degrees.
- c. Winter-long, cold and snowy, with strong northwest monsoon wind.
  - (1) With an exception in the southwestern peninsular region, the average temperature in the four winter months is below freezing.
  - (2) Average January temperature in most of Hokkaidō 2-3 feet deep on the level. Snow much deeper on the windward west side than to the east of the central mountain chain.
- d. Precipitation:
  - (1) Hokkaidō is one of the driest parts of Japan. At most of its stations, rainfall amounts to only 40 inches. However, no distinct dry season, although there are seasonal differences.
  - (2) More rain in the winter half of the year than in the summer half of the year on the west coast.

Converse true of the regions on the eastern side.

e. Sunshine:

- (1) Lack of sunshine - Principal defect of Hokkaidō's climate.
- (2) In the west, deficiency most marked in winter.
- (3) Eastern Hokkaidō has the least sunshine in summer with dense fog covering the coastal regions.

2. Northern Honshū:

- a. Average summer temperature above 71.6 degrees.
- b. Pacific coast a few degrees lower than in the interior or the Japan Sea side.
- c. Average January temperature only a few degrees below freezing.
- d. Rainfall heavier than in Hokkaidō; abundant in the western Tohoku, with less rain on the eastern side and in the interior.
- e. The region north of Kōriyama covered with snow for several months in winter, with heavier snow on the west (several feet) than on the Pacific side (6-8 inches).

3. Rest of Honshū, Shikoku, and Kyūshū:

- a. Summer temperature high; average for the warmest month between 75-81 degrees.
- b. Rainfall abundant and humidity high.
  - (1) Two rainfall maxima, one in June and one in September.
  - (2) Heavy rainfalls of over 100 inches are recorded at stations along the Pacific coast facing the inflowing summer monsoon, and along the Japan Sea coast which is windward during the winter monsoon.
  - (3) 40-50 inches of rainfall along the borderlands of Setonaikai.
- c. Winter relatively mild, the coldest winter month having a mean temperature above freezing.

- d. Frosts are widespread throughout this region in midwinter.
- e. On the whole, subtropical Japan has relatively severe winter weather for its latitudes. Kagoshima records average of 6-7 days of snowfall, Tokyo 13 days, Osaka 14-15 days, but the snow does not last very long on the ground. Only in the northern part of Chubu, snow lies deep on the ground.

## VI. NATURAL VEGETATION

A. The Japanese Ministry of Agriculture and Forestry classifies 54.5% of Japan Proper as forest land.

B. The three zones of Japanese forest:

1. The subtropical forest zone (southern Japan as far north as 37 or 38 degrees N. Lat.; mean annual temperature between 55 and 70 degrees F.)

a. Broadleaf evergreen trees predominant.

*Boxus sempervireus*  
*Quercus ilex*  
*Quercus silva*  
*Quercus vibrayeana*  
*Quercus abuta*

b. Deciduous broadleaf trees planted.

*Quercus serrata*  
*Quercus glandulifera*  
*Pinus densiflora*  
*Pinus tunbergii*

c. On the whole, this forest zone is not rich in good timber trees.

d. Industrially important trees in this zone are wax tree, camphor tree and several varieties of bamboo.

2. The temperate forest zone (from 37 or 38 degrees N. Lat.; mean annual temperature between 43 to 55 degrees F.)

a. Deciduous trees predominant, and mixed forest most common.

Maple		Fir
Birch	mixed with:	Pine
Beech		Hemlock
Poplar		Cedar
Oak		

b. The region includes larger part of economically valuable forests.

(1) Conifers:

Japanese Cypress  
 Arbor vitae  
 Japanese Cedar  
 Fir

(2) Deciduous trees:

Keyaki  
 Beech  
 Ash  
 Chestnut  
 Poplar  
 Oak

3. The cold temperate forest zone (northern and eastern Hokkaidō; mean annual temperature below 43 degrees F.)

a. Conifers predominant

Fir  
 Spruce

b. A great variety of broadleaf deciduous trees of little commercial value is present either in pure or in mixed stands.

c. Forests in this zone are limited commercial value because of their inaccessibility, but are effective for flood control.

C. Honshū, Shikoku, and Kyūshū supply 50 to 65% of the nation's timber requirement; Hokkaidō about 15%.

1. The area planted in conifers roughly 10 times that of the broadleaf trees. The species planted are Japanese cypress, Japanese cedar, and various kinds of pines.
2. Two of the largest areas of planted forest are basins of

Yoshino-gawa in Shikoku and Tenryū-gawa in Chūbu.

D. Forest conservation program effectively carried out. Japanese consider trees as crops and not as exploitable resource. In Japan Proper the area of artificially planted forests represents 19% of the total forest land; in Hokkaidō, 1.6%.

E. Adverse factors in Japan's timber situation.

1. Lack of conifer variety which is most essential for industrial purpose of the country.
2. Mountainous feature of the country places forest resources beyond economic exploitation.
3. The production of timber subordinated to the more urgent need for prevention of soil denudation.

F. Forest utilization.

1. Protective forest to prevent flood, soil denudation, etc.
2. Commercial utilization:
  - a. The principal products obtained from Japanese forests are timber, wood for charcoal, and firewood.
    - (1) Japan's broadleaf forest unfit for the production of lumber; thus, more important as a source of fuel and charcoal.
    - (2) In 1937 volume of wood used for fuel and charcoal was more than twice that used for lumber.
  - b. Coniferous trees contribute most of Japan's lumber—80 to 85%—thus, they greatly predominate in the planted forest.
    - (1) 50% of the total production goes into construction.
    - (2) The second largest user of timber is the pulpwood industry.
  - c. The four species most important commercially are:

Sugi (Cedar)  
Matsu (Pine)  
Ezomatsu (Spruce)  
Todomatsu (Fir)  
Hinoki (Cypress)

## VII. POLITICAL SUBDIVISION

A. A ken is an administrative subdivision of the national government.

1. Japan is divided into 43 (including Okinawa) predominantly rural prefectures (ken), 2 urban prefectures (fu), 1 territorial administration (dō), and 1 metropolitan prefecture, the Tōkyō-to (city and prefecture).
2. Sizes of the prefectures shown on the attached map.

B. Counties (Gun) ( 郡 )

1. Gun is the division of prefectures; there are 627 gun's in entire Japan.
2. Though the political unit, gun, was abolished in 1926, it still continues to be an important social, economic, and geographical unit. Agricultural and business transactions are still conducted on gun basis, and on the whole, local customs coincide with the gun boundaries.

3. Municipalities (Shi-cho-son) ( 市町村 )

a. Cities (shi).

(1) Formerly under the supervision of the Home Ministry.

(2) Must have a population of 30,000 or more.

b. Towns (machi or chō).

(1) Comes under the supervision of prefectural governor.

(2) Must have at least one settlement with a population of 5,000 or more, and it may have a number of small buraku ( 部落 ) as well.

c. Townships (mura or son) ( 村 )

(1) Comes under the supervision of prefectural governor.

(2) Population less than 5,000.

d. Buraku are social-economic units, each consisting of about 20 households, a number of which together make up a mura.

VIII. Regional Division (地方区分)

Regionally, Japan is divided into the following eight regions:

1. Hokkaidō Chihō	( 北海道地方 )
2. Ōu Chihō	( 奥羽地方 )
3. Kantō Chihō	( 關東地方 )
4. Chūbu Chihō	( 中部地方 )
5. Kinki Chihō	( 近畿地方 )
6. Chūgoku Chihō	( 中國地方 )
7. Shikoku Chihō	( 四国地方 )
8. Kyūshū Chihō	( 九州地方 )



## Section II: Regional Geography

### KANTŌ-CHIHO (関東地方)

Area (面積): 32,225 sq.kilo (方千米)  
 Population (人口): 16,866,093  
 Density (密度): 523 per sq. kilo

## I. Position and Administrative Sub-division (位置及び行政区分)

- A. Situated approximately in the center of Honshū, facing the Pacific Ocean to the east and to the south. Beyond the northern boundary is the Ōu-chihō, and beyond the western boundary is the Chūbu-chihō.
- B. Administratively the region is divided into one "To" and six "Ken".

Prefectural Name (県名)	Prefectural Capital (県庁所在地)
Tōkyō-to (東京都)	Tōkyō-to *
Kanagawa-ken (神奈川県)	Yokohama (横浜)
Saitama-ken (埼玉県)	Urawa (浦和)
Gumma-ken (群馬県)	Maebashi (前橋)
Tochigi-ken (栃木県)	Utsunomiya (宇都宮)
Ibaraki-ken (茨城県)	Mito (水戸)
Chiba-ken (千葉県)	Chiba (千葉)

\*The Zunan-senō is divided at 30 degrees north latitude, and only those islands north of this line are under Japan. These islands are supervised by Tōkyō-to.

## II. Physical Features (地形)

### A. General Description (総観概)

The northern and the western borders are covered with rugged mountains, and towards the Pacific extends the largest plain in Japan, the Kantō-heiya, which covers

the area of approximately 6,000 sq. miles. All the rivers have their sources in these mountains and flow southward or eastward. In the south are two hilly peninsulas, the Miura-hantō and the Bōsō-hantō. Between these two peninsulas lies the Tōkyō-wan.

B. Mountains in the north: The following mountains separate this region from the Ōu-chihō and partly from Chūbu-chihō.

1. Abukuma-kōgen (阿武隈高原)
2. Taishaku-sammyaku (帝釈山脈)
3. Mikuni-sammyaku (三国山脈)
4. Nasu-kazantai (那須火山帶) of which the well-known active volcanoes are:  
Nantai-zan (男体山)  
Akagi-san (赤城山)  
Haruna-yama (榛名山)  
Asama-yama (浅間山)

C. Mountains in the west: The following mountains comprise the western border of this region beyond which lies the Chūbu-chihō.

1. Kantō-sammyaku (関東山脈)
2. Fuji-kazantai (富士火山帶) of which the most famous mountain is Fuji-san.

D. The Kantō-heiya (関東平野)

The Kantō-heiya is made up of diluvial upland and geologically relatively new alluvial lowland. It has the greatest compact population cluster. In 1940, over 15 million persons, or approximately 21% of the total population of Japan Proper, inhabited this plain. The diluvial upland is largely ash-covered and marked by lack of water, which makes the land unsuited for rice cultivation. Thus the population is more concentrated on the low flood-plain and delta areas where lands are more fertile and irrigation, abundant.

E. Rivers ( ) ( )

All the rivers in this region originate in the northern or western mountains and flow in easterly or southerly direction. The principal rivers are:

1. Originating in the northern mountains:

- a. Tone-gawa (利根川)
- b. Naka-gawa (那珂川)

2. Originating in the western mountains:

- a. Ara-kawa (荒川)
- b. Tama-gawa (多摩川)
- c. Sagami-gawa (相模川)

## F. Shorelines (海岸線)

1. The eastern shores

Inubō-saki (犬吠崎) divides the eastern coast into two arcs, Kashima-ura (鹿島浦) in the north and Kujūkuri-ga-hama (九十九里浜) in the south.

2. The southern shores

The two hilly peninsulas, Bōsō-hantō (房総半島) and Miura-hantō (三浦半島) form a narrow channel called Uraga-suidō (浦賀水道) which leads into Tōkyō-wan (東京湾).

Between Miura-hantō and Izu-hantō (伊豆半島) is a bay called Sagami-wan (相模湾).

## G. Lakes (湖)

1. Kasumi-ga-ura (霞ヶ浦)

This is the second largest fresh-water lake in Japan covering 177 sq.kilo and having a circumference of 150 kilometers. Economic value of this lake is slight, although fresh-water fish is caught in commercial quantity.

2. Kita-ura (北浦)

A fresh-water lake adjacent to Kasumi-ga-ura.

3. Chūzenji-ko (中禅寺湖)

A lake of volcanic origin. It is near Nikko and adds to the scenic beauty of the place.

4. Ashino-ko (芦之湖)

Also a lake of volcanic origin near Hakone.

### III. Climate (氣候)

#### A. Winter climate

The high atmospheric pressure developed in the cold Asiatic continent forces the air in south-easterly direction. The moisture absorbed en-route is deposited on the outer fringes of the northern and western mountains in the form of snow, and the dry, moistureless wind blows over the plain. The weather is generally clear throughout the winter. As the spring season approaches the pressure centers move from the continent eastward in the vicinity of Kurile. The air from these centers then travel southward, becoming warm and picking up moistures on the way. When it reaches Japan, it brings with it the drizzly weather called "Tsuyu".

#### B. Summer climate

In the summer, pressure centers move to the Pacific and the southwest winds prevail. The weather becomes sultry and oppressive. In September there is the second rainfall maximum, but after this is over the weather becomes cool and ideal for outings.

### IV. Industries (産業)

#### A. Agriculture (農業)

##### 1. General Description

The region containing the largest lowland in Japan is most suitable for agriculture. The percentage of arable land (29%) (可耕地) is the highest of all the regions. However, the dry lands are more extensive than the paddy fields. This condition limits the cultivation of rice greatly. The ratio is 1.3 for dry lands (畠) as against 1 for paddy fields (田).

##### 2. Rice (米)

Paddy fields are found mainly along the lower oasins of the principal drainage system where irrigation facilities (灌漑の便) are available.

##### 3. Wheat (麦)

This region is noted for the production of wheat and its related crops.

a. Barley (大麦) - Raised in all the ken, especially, in Ibaragi, Saitama, Tochigi, and Chiba.

One-half of the total production of barley in Japan is raised here.

b. Wheat - Extensively cultivated in Ibaraki, Saitama, Tochigi, and Gumma. About one-third of Japan's total production comes from this region.

#### 4. Sweet Potatoes (甘 藕 )

Widely cultivated throughout the region, but principally in Chiba, Saitama, Ibaraki, and Kanagawa. The region constitutes approximately the northern limit of this product.

#### 5. Tobacco (煙 草 )

Northern Ibaraki, eastern Tochigi, and the neighborhood of Hatano in Kanagawa-ken are the important tobacco centers.

#### B. Sericulture (養 蟹 業 )

Mulberry, primarily an upland crop, is raised in western and northwestern mountain slopes in Gumma, Saitama, Tōkyō, and Kanagawa.

#### C. Fishing Industry (漁 業 )

The coastal waters abound in various species of fishes, especially off the coast of Inubo-saki where the warm current (Kuro-shiwo) from south and the cold current from north meet. Sardine is the fish most abundantly caught along the coast of Chiba and mackerel pike along Ibaragi coast. Choshi near Inubō-saki is a base for the deep-sea fishing fleet. The important deep-sea fishes are bonita, tuna, yellowtail, etc. In Tōkyō-wan and in the coastal waters of Sagami-wan, mackerel, sun-bream, and shrimp are abundantly caught. Tōkyō-wan is especially noted for its seaweed known as "Asakusa-nori".

#### D. Mining Industry (鉱 業 )

##### 1. Ashio-dōzan (足尾 銅山)

Yearly output of: Gold (金) - 227 kilograms  
Silver (銀) - 16,454 kilograms  
Copper (銅) - 12,762 metric tons

##### 2. Hitachi-kōzan (日立 鉱山)

Yearly output of: Gold - 3,969 kilograms  
Silver - 41,922 kilograms  
Copper - 10,790 metric tons

### 3. Jōban-tanden (常磐炭田)

The third most important coal field in Japan. Yearly production approximately 2 million tons; total reserve about 200 million tons.

## E. Manufacturing Industries (工業)

1. The region can be divided into following three industrial districts according to their specialities.

- a. Western and northwestern hill regions, specializing in sericulture and silk textile manufacturing.
- b. Lower basins of Tone-gawa where brewing industry predominates.
- c. Keihin-kōgyō-chitai where modern manufacturing industries prevail.

### 2. Textile (織物)

#### a. Silk Textile (絹織物)

Gumma-ken: The centers are at Kiriū (桐生), Isezaki (伊勢崎), Tatebayashi (館林). Yearly outputs amount to about 78 million yen.

Tochigi-ken: Ashikaga (足利) is the center with annual production of about 35 million yen.

Other important centers are at Hachioji (八王子) in Tōkyō-to and Chichibu (秩父地方) area in Saitama-ken.

#### b. Cotton textile (木綿織物)

Cotton textile mills are mostly concentrated in Saitama-ken in the cities of Urawa, Ōmiya, and Tokorozawa.

### 3. Cotton Spinning Industry (紡績業)

This industry is of secondary importance in this region. Approximately 15% of the total production in Japan comes from the following ken:

Gumma-ken:	50 million yen yearly (1927)
Saitama-ken:	39 million yen "
Ibaraki-ken:	13 million yen "
Tōkyō-to:	8 million yen "

4. Other manufacturing industries are concentrated along the narrow belt stretching from Tōkyō to Yokohama adjacent to the bay:

Chemicals (化 学 藥 品)

Machineries (機 械 類)

Food Processing (食 料 品 製 造)

Shipbuilding (造 船)

Steel manufacturing (製 鐵)

Fertilizer (肥 料 製 造)

Publishing (印 刷 業)

5. Brewing Industry (釀 造 業)

The two important products are shōyū (醤 油) and sake (酒). Of the two, shōyū is more important. annual production is about 700,000 koku valued at 23 million yen.

V. Transportation (交 通)

Tōkyō is the center of air and rail transportations. The main railroads (本 線) are as follows:

A. To northern Japan

Tōhoku-honsen (東 北 本 線) (Tōkyō-Sendai-Aomori)

Joban-sen (常 磐 線) (Tōkyō-Mito-Iwanuma)

Takasaki-sen (高 崎 線) (Ōmiya-Takasaki)

Joetsu-sen (上 越 線) (Takasaki-Nagaoka-Niizu)

Shinetsu-sen (信 越 線) (Takasaki-Uyeda-Nagano-Naoetsu)

B. To western Japan

Chūō-honsen (中 央 本 線) (Tōkyō-Kōfu-Shiojiri-Nagoya)

Tōkaidō-honsen (東 海 道 本 線) (Tōkyō-Kōbe)

C. Also interurban electric car system is well developed.

## VI. Communication (通信)

The Tokyo Wireless Station primarily carries on communication with North and South American countries and with countries on the Asiatic continent.

Receiving stations (受信局) - Fukuoka and Iwatsuki, both in Saitama-ken

Sending stations (送信局) - Oyama in Tochigi-ken.

## VII. Commerce (商業)

### A. Domestic Commerce (国内商業)

Tokyo is the commercial center of the eastern half of Japan. This includes Kantō, Ōu, Hokkaidō, and a portion of Chūbu-chihō.

### B. Foreign Trade (外国貿易)

Export trade is conducted through the port of Yokohama. Before the war raw silk and silk products were the principal export items (輸出品). These were exported to the United States. Other commodities were fish-oil, canned crabmeat, flour, peppermint, etc. Imports (輸入品) were wheat, lumber, steel, wool, cotton, etc.

## VIII. Population (人口)

- A. The Kanto, along with Kinki-chihō, has the greatest population concentration. Before the war the density was over 500 per square kilometer. The densest population is found in the so-called Keihin-kōgyō-chitai.
- B. The population is also concentrated along the railroad from Tokyo to Takasaki with Takasaki and Maebashi as minor population centers.
- C. Eastern Chiba and Ibaraki-ken are less dense. Approximately East Longitude 140 degrees is the line that separates dense and less dense areas.

## IX. Cities and Towns (都市)

### A. Tōkyō-to (東京都)

#### 1. General Description

Tōkyō-to is the capital of Japan and the center of culture, education, politics, commerce, and transportation. The municipal system of former Tōkyō-shi was abolished during the war (in 1943) and combined with the prefectural government into a single political unit. Thus there is no mayor of municipal Tōkyō now, but the governor of Tōkyō-to serves as the mayor concomitantly.

The western portion is mostly the Musashi highland and is well-known for its sericulture and silk textile industries. The eastern section of the prefecture is the metropolitan area.

2. Metropolitan section of Tōkyō-to

- a. Yama-no-te is the residential district.
- b. Shita-machi is the business district.
- c. East of Sumida-gawa and the northern and southern sections comprise the industrial districts.

3. Hachiōji ( 八王子 ) - A well-known raw silk and silk textile center.

4. Tachikawa ( 立川 ) - A former Japanese Army air base; now the Tachikawa Air Force Base.

B. Kanagawa-ken

1. General Description

West of Sagami-gawa is mountainous with the famous Hakone-yama at the southwestern border. East of this river is mostly a terrace land, and Miura-hanto thrusts out to form Tokyo-wan in the north and Sagami-wan in the west. The only lowlands are found along the Sagami-gawa basin where sericulture is the important industry.

2. Yokohama ( 横浜 ) - One of the two most well-known foreign trade ports in Japan, the other being Kobe. Yokohama is primarily an exporting port, the principal exports being raw silk, canned marine products, textiles, etc. to the United States. The principal imports are raw materials, such as cotton, wool, steel materials, machineries, oil, etc. At present it is the home of the 8th Army Hq. and also of Yokohama Base Command.

3. Kawasaki ( 川崎 ) - An industrial city lying between Tokyo and Yokohama on the Kanagawa-ken side. The industries include cotton spinning, steel manu-

facturing, cement manufacturing, ship-building, brewing, etc.

4. Yokosuka (横須賀) - A city located on the Miura-hanto facing Tokyo-wan. A former Japanese naval base of major importance.

5. Uraga (浦賀) - Historically famous as the landing place of Commodore Perry and his party. Also known for its ship-yards.

6. Atsugi (厚木) - A small town situated in about the center of Kanagawa-ken along the Sagami-gawa. Atsugi airfield is well-known as the first landing point of Gen. MacArthur. The airfield is not in use any longer.

7. Shōnan-chihō (湘南地方) - Kamakura, Hiratsuka, Hayama, Oiso, Odawara along the coast of Sagami-wan are all well-known resort towns. At Hakone, a little inland from the coast, is a famous hot-spring.

## C. Saitama-ken

### 1. General Description

Western half of the prefecture is mountainous, but the eastern half is a vast lowland whose ratio of arable land to the total area of the prefecture is the largest in Japan(45%). The people engage in agriculture and in small scale home industry, manufacturing textiles.

2. Kawaguchi (川口) - The northern limit of the Keihin-kōgyō-chitai. Noted for its cast-iron products.

3. Kumagaya (熊谷) - A market center for cocoons and raw-silk.

4. Tokorozawa (所沢) - Formerly known for its Rikugun Hikō Shikan Gakkō (Army Air Corps Officers' Training School).

5. Chichibu-chihō (秩父地方) - A center of silk-reeling and silk textile weaving.

## D. Chiba-ken

### 1. General Description

The southern part of the Bōsō-hantō is hilly, but the rest an

extensive lowland. The climate is very mild suited for growing fruits and raising cattle. The surrounding waters abound in various species of fishes. Agriculture is carried on in the northern part of the prefecture where wheat, rice, sweet potatoes are the important products.

2. Chiba (千葉) - Prefectural capital.
3. Chōshi (銚子) - An important fishing port on the east coast; also known for its shōyu manufacturing.

#### E. Ibaraki-ken

##### 1. General Description

In the south is the vast agricultural land where rice and wheat are the principal products. Along the coastal area fishing industry flourishes. The Kasumi-ga-ura region is famous for shoyu production; Naka-gawa basins for tobacco cultivation; and Hitachi for its copper refining.

2. Mito (水戸) - Prefectural capital.
3. Hitachi (日立) - A copper mine and refining center. Both foreign and domestic copper, gold, and silver ores are refined.

#### F. Tochigi-ken

##### 1. General Description

Barley and wheat are the two important agricultural products in the southern farming areas. Tobacco is raised in the eastern section of the prefecture. Sericulture and textile manufacturing are important industries in the northern hilly regions. Also a number of well-known hot springs are found in the mountains.

2. Utsunomiya (宇都宮) - Prefectural capital.
3. Ashikaga (足利) - An important center for the textile industry.
4. Nikkō (日光) - A famous resort town; also known for its beautiful Toshogu in which many members of the Tokugawa family are enshrined. From Nikkō, a hair-raising climb up mountain roads brings one to the Chūzenji-ko, one of the most beautiful lakes in Japan.

## G. Gumma-ken

### 1. General Description

The greater part of the ken is mountainous with famous hot-springs, such as Ikaho, Kusatsu, etc., dotting here and there. The lowland is in the southeastern section along the Tonegawa. As in the other inland prefectures, the principal industries are sericulture and textile.

2. Kiriū (桐生) - Noted for its raw-silk, silk textile, and rayon goods.
3. Takasaki (高崎) - An important railroad junction point. The city is also known as a marketing center for cocoons and raw-silk.
4. Maebashi (前橋) - Prefectural capital. An important cocoon and raw-silk center.

## H. Nampō-Shotō (南方諸島)

1. The islands which jut out southward into the Pacific are called the Nampo-shotō. These islands are under the administrative supervision of Tokyo-to. The islands are divided into following three groups:

- a. Izu-shichitō (伊豆七島)
- b. Ogasawara-shotō (小笠原諸島)
- c. Iwojima-shotō (硫黃島諸島)

### 2. The Izu Group

There are seven islands in the group, the important ones being, Ōshima, Miyake-jima, and Hachijō-jima. Because of the insularity, the inhabitants of these islands have been separated from the main stream of the Japanese life. The people still retain their ancient customs and languages. The principal industries are cattle-raising and fishing. Ōshima is noted for producing superb camellia oil for hairs.

### 3. The Ogasawara Group

This group is made up of four main islands, the Chichi-jima, Haha-jima, Ani-jima, and Ōtōto-jima. Futami-kō on Chichi-jima is the principal port. In Ōmura near Futami is the trans-Pacific cable station.

### 4. The Iwo-jima Group

This group is made up of three islands, the Kita-Iwō-jima, Iwō-jima, and Minami-Iwō-jima. The famous battle of Iwō-jima was fought on the second island.

# ŌU-CHIHŌ (奥羽地方)

Area: 26,911 sq. kilometers  
Population: 8,593,308 (1947 census)  
Density: 128 per sq. kilometer

## I. Position and Administrative Sub-division

A. This region occupies the northeastern section of Honshū; also called Tōhoku-chihō. In the south lie Kantō and Chūou-chihō. In the north the region is separated from Hokkaidō by Tsugaru-kaikyō.

B. Administratively the region is divided into six prefectures.

<u>Prefectural Name</u>	<u>Prefectural Capital</u>
Fukushima-ken (福島県)	Fukushima (福島)
Miyagi-ken (宮城県)	Sendai (仙台)
Iwate-ken (岩手県)	Morioka (盛岡)
Aomori-ken (青森県)	Aomori (青森)
Akita-ken (秋田県)	Akita (秋田)
Yamagata-ken (山形県)	Yamagata (山形)

## II. Physical Features

### A. General Description

The shoreline is relatively simple with no deep indentation either on the Pacific side or the Japan Sea side. The chief characteristic of the terrain is that there are three parallel mountain ranges running in north-south direction. The lowlands are found lying between these mountains and the rivers flow parallel with the mountains.

### B. Mountain Ranges (山脈)

#### 1. Eastern Ōu

##### 1. Abukuma-sammyaku (阿武隈山脈)

- b. Kitakami-sammyaku (北上山脉)
- 2. The Central Divide (中央分水嶺)
  - a. Ōu-sammyaku (奥羽山脉)
  - b. Nasu-kazantai of which the well-known mountains are:

Bantai-san (磐梯山)  
 Azuma-yama (吾妻山)  
 Ganju-zan (岩手山)  
 Hakkōda-san (八甲田山)

- 3. Western Ōu
  - a. Deba-kyuryō (出羽丘陵)
  - b. Chōkai-kazantai (鳥海火山帶)

#### C. Plains

- 1. To the east of the central divide are three plains, Sendai-heiya (仙台平野), Kitakami-heiya (北上平野), and Sanbongihara (三本木原).
- 2. To the west of the central divide are numerous intermontane basins and such coastal plains as Shōnai (庄内), Akita, and Tsugaru-heiya (津輕平野).

#### D. Rivers

Most of the rivers flow in northerly or southerly directions through the plains between the mountain ranges.

- 1. Rivers in the eastern half:
  - a. Abukuma-gawa (阿武隈川)
  - b. Kitakami-gawa (北上川)
- 2. Rivers in the western half:
  - a. Iwaki-gawa (岩木川)

- b. Omono-gawa (雄物川)
- c. Mogami-gawa (最上川)
- d. Agano-gawa (阿賀川)

## E. Coastline (海岸線)

### 1. The Northern Coast

There is a deep indentation forming the Mutsu-wan (陸奥湾) held by two angular peninsulas, Tsugaru-hantō (津軽半島) on the left and Shimokita-hantō (下北半島) on the right.

### 2. The Eastern Coast

- a. Kitakami coast - Presents typical Ria-type shoreline. This coast has repeatedly suffered damage by tidal waves since ancient times.
- b. Abukuma coast - The coast is smooth.
- c. Sendai-wan - The only noteworthy bay on the east coast embraced by Ojika-hantō (牡鹿半島). Within this bay is found Matsushima-wan (松島湾), which is interspersed with numerous small islands with shapely pine trees, and known as one of the three scenic spots in Japan.

### 3. The Western Coast

With an exception of Oga-hantō, shoreline is smooth. Consequently no first-rate ports are found. Such ports as there are, such as Sakata (酒田), Tsuchizaki-ko (土崎港), and Noshiro (能代), are founded on the estuaries of rivers.

## F. Lakes

- 1. Inawashiro-ko (猪苗代湖) - A lake formed by blocking of drainage by ash and lava from the nearby Bantai-zan.
- 2. Towada-ko (十和田湖) - A crater lake on the border between Aomori-ken and Akita-ken.

### III. Climate (氣候)

#### A. Temperature (溫度)

Similar climate in respect to temperature is found in Central Europe, in France, Germany, or England, and in the United States in southern New England and the middle Atlantic states. In Japan similar temperature is experienced in the mountain regions of Chūbu-chihō. However, because of the wide latitudinal difference (5 degrees), northern Ōu is considerably colder than in the sections along its southern border. The mean annual temperature in the north is 9 degrees C., whereas in the south, it is 12 degrees C. The summer isotherms arch northward and the winter isotherms, southward. Comparing the Pacific and the Japan Sea sides, the latter is somewhat warmer than the former at the same latitude. This is due to the warm Tsushima current washing the Japan Sea coast.

#### B. Precipitation (降水量)

The amount of precipitation is generally less than in other parts of Japan, but far more than in Hokkaidō, averaging 1100 mm.-1800mm. Comparing the eastern Ōu with the western Ōu, the latter experiences a greater amount of precipitation.

1. East - Wettest month is September, but the amount is small. The phenomena of Bai-u is less distinct. Summer monsoon is weak, and the effect of August and September typhoon, negligible.
2. West - Precipitation heaviest in December, June, and September.

### IV. Industries

#### A. Agriculture

##### 1. General Description

The proportion of arable lands (可耕地) to the total area is about 13% (870,000 hectares) as against 26% in Kantō-chihō, but the per capita holding is larger than in any other region in Japan. Of the arable lands, 62% is paddy fields and the remainder, dry fields. The average yearly value of the farm products is approximately 260 million yen. The principal crops are rice in the western plains and rice, wheat, soya-bean, and barnyard grass for horse feed in the eastern lowlands.

## 2. Rice

Rice is grown principally in Akita, Shōnai, Yokote (横手), Tsugaru, Sendai-heiya, and also in Aizu-bonchi (会津盆地). By early planting and improvement of rice-seeds and fertilizers considerable quantity of rice is produced. Percentage of yield per unit of land is higher than in Kantō-chihō or Kyūshū-chihō, but slightly less than the national average, although the yields in Yamagata-ken and Akita-ken are higher. Quality of rice in western Ōu is superior to that in eastern Ōu, and quantitatively the former has a yield double that of the latter. The planting is done in April and the harvesting, in September.

## 3. Other farm products (他の農産物)

- a. Barnyard grass, millet, soya-bean - Iwate, Aomori, & Miyagi-ken.
- b. Tobacco - Southern parts of Fukushima-ken.
- c. Apples - Tsugaru-heiya in Aomori-ken.
- d. Potatoes - Grown all over Ōu-chiho.

## B. Sericulture (養蚕業)

Next to rice cultivation, raw silk industry is the most important with production amounting to 50-60 million yen yearly. There are about 240,000 farm households engaged in raising silkworm as a secondary occupation. Of this figure, 90,000 households are in Fukushima-ken followed closely by Yamagata and Miyagi-ken.

## C. Fishing (漁業)

Species are numerous because of the meeting of cold and warm currents (寒流と暖流) in the adjacent waters, but the catch is relatively small, amounting to 20-30 million yen yearly. Fishing is most extensively carried out along the coast of Iwate-ken.

## D. Animal Industry (牧畜業)

- 1. Horse-raising - Because of the availability of pasture lands along the foot of mountains, horse-raising has been a very flourishing industry since ancient days. The soil along the mountain slopes is rich in calcium

content, and the horse raised on grass grown here is known for its sturdiness. Horses are more numerous on the eastern side of the Ōu-sammyaku.

2. Other domestic animals - Not too important, although some sheep, cows, hogs, etc. are raised in eastern Ōu.

## E. Forestry (林業)

Forests cover over 60% of the total area of Ōu-chiho and the products from this source are valued at 40-50 million yen yearly. Arbor vitae in Tsugaru, pine in Iwate, and Japanese cedar in Akita are the commercially more important timbers. Also the Kitakami and the Abukuma mountain regions are known for their production of charcoal which amounts to about 20% of the total production in Japan.

## F. Mining (鉱業)

1. Mining industry, along with forestry, is one of the most important industries of Ōu. It stands out above all other regions in variety and quantity of the mineral resources. Yearly production amounts to about 40-50 million yen.

### 2. Mineral Resources (鉱產物)

- a. Jōban District (常磐炭田) - Coal; annual output about 2 million tons; estimated reserve 306 million tons.
- b. Kitakami District (北上地区) - The Kamaishi and Sennin mines in Iwate produce iron ore to the extent of about 45% of the domestic production. Estimated reserve is about 33 million tons of magnetite ore. The total production of ore in 20 years from 1925-1945 amounted to 7,773,282 metric tons of which the iron content was about 4 million tons. Other prefectures such as Akita, Aomori, and Fukushima also produce iron ores, but to a negligible amount. Iwate and Aomori also produce iron sand. The totals from 1925-1945 were 187,594 tons and 829,878 tons respectively.
- c. Ōu-sammyaku District - Copper and silver; the important mines are Kosaka (小坂) and Osarizawa (尾去沢) both in Akita.
- d. Deba District (出羽地区)

Oil in the vicinity of Akita-shi; produced about 122,792 kiloliters of petroleum in 1945. Of the several fields, Yabase field discovered in 1934 is said to be the best producing field. In 1945 its production was 83,712 kilolitres. The total estimated proved reserve was about 1,251,500 kilolitres, as of 1945. Oil is also produced in northern Yamagata near the coast of Japan Sea. the production from this field in 1945 was about 51,000 kilolitres with an estimated proved reserve of about 286,000 kilolitres.

## G. Manufacturing Industries (製造工業)

### 1. General Description

The region is industrially backward. Most of the manufacturing is done in small scale home factories. Large modern type factories are found in Kōriyama (郡山) in Fukushima and Sendai area in Miyagi.

### 2. Principal Industries

Silk-reeling - Fukushima, Yamagata

Silk textile - Fukushima, Yamagata

Chemicals - Jōban-tanden district and the neighborhood of Inawashiroko, both in Fukushima-ken.

Ceramics - Aizu-chihō in Fukushima-ken

Steel - Kamaishi in Iwate-ken

Lumber - Akita-ken

## V. Transportation (交通)

### A. Railroads (鉄道)

1. Tōhoku-honsen (東北本線) - From Tōkyō to Aomori through Shirakawa, Sendai, Morioka, etc.
2. Ōu-honsen (奥羽本線) - From Fukushima to Aomori through Yonezawa, shinjo, Akita.

### B. Marine Transportation (海上交通)

There is no first-rate port worthy of mention in this region. Aomori is only a ferry port connecting Honshū with Hokkaidō.

## VI. Population

- A. Average density was approximately 100 per square kilometers before the war. At present this figure runs much higher because of the government policy to discourage urban concentration and also, of the difficulties encountered in cities to eke out livelihood. Density becomes less in the north. In Sendai and Fukushima areas, the density is over 300 per square kilo, whereas in Aomori it is about 98. The least populated areas are southern Aizu(15-16 per sq. kilo) and northern Kitakami(20 per sq. kilo.).
- B. At present the city with the population of 200,000 or over is Sendai only, and with 100,000 or over, Akita and Morioka.

## VII. Cities and Towns

### A. Fukushima-ken

#### 1. General Description

The prefecture can be divided into the following three geographic districts:

Pacific coast (太平洋沿岸)  
Abukuma-gawa basin (阿武隈川流域)  
Aizu-basin (会津盆地)

Principal industries are sericulture, pottery, and some cotton spinning and chemical industries in Koriyama.

- 2. Fukushima - Prefectural capital. Marketing center of cocoon and raw-silk.
- 3. Kōriyama (郡山) - An important railway junction; also a center of cotton spinning, silk-reeling, and other manufacturing industries.
- 4. Inawashiro-ko (猪苗代湖) - A lake situated in the eastern part of the prefecture at about 500 meters above sea level. This difference in height from the surrounding lands makes it possible to generate hydro-

electricity at the lake exit. The electricity is transmitted to various factories in Kōriyama and far south as Tōkyō-Yokohama area. Also a canal is dug from this lake to Kōriyama, irrigating farm lands en-route.

5. Wakamatsu (若松) - The principal city in Aizu-basin. Noted for its lacquer-wares and ceramics.

B. Miyagi-ken

1. General Description

At the western boundary are Ōu-sammyaku and Nasu-kazanchitai with its numerous hotsprings. Especially a geyser at Onikōbe is famous. In the northeast is Kitakami-sammyaku, which extends into Ojikahanto. Fishes are abundant along the coastal waters, especially tuna, sardine, and squid. The coast of Kinkazan is a well-known whaling ground. Sendai-heiya produces rice, and in the southern sections sericulture is also an important industry.

2. Sendai - The largest city in Ōu and also the prefectoral capital of Miyagi. It is also the seat of the Tōhoku University and of many other schools, among them Tōhoku Gakuin and Miyagi Jogakkō, both Christian schools.

3. Matsushima (松島) - One of the three scenic spots of Japan.

C. Iwate-ken

1. General Description

A large part of the prefecture is covered with mountains, the Ōu-sammyaku and Nasu-kazanchitai in the west and the Kitakami-sammyaku in the east. It has the smallest population density and percentage of arable lands among all prefectures. The Kitakami-gawa basin comprises the only lands suitable for farming. The main products are lumber, charcoal, and horses. Fishing industry is quite extensively carried out along the coast, but it has the disadvantage of being far from the market centers.

2. Morioka - Prefectural capital. A noted horse-

trading center.

3. Kamaishi (釜石) - Iron ore is mined in the neighborhood and smeltered at the steel mill in Kamaishi.

D. Aomori-ken

1. General Description

This is the northernmost prefecture and many famous volcanoes and hot springs are found within its boundary. In the eastern lowland horse-raising is the most important industry. Timbers are cut from the mountains in Shimokita and Tsugaru-hantō. Tsugaru-heiya produces rice and apples.

2. Aomori - Prefectural capital. An important junction point for both land and sea transportation.
3. Hirosaki (弘前) - A city in Tsugaru-heiya. A well-known apple producing center.

E. Akita-ken

1. General Description

The prefecture is mountainous except along the river basins of Omono and Noshiro. Aside from the cultivation of rice along the river basins, lumbering and mining are the two important industries of the prefecture. The oil field in Akita-heiya is one of the two oil producing districts in Japan.

2. Akita - Prefectural capital and a oil refining center.
3. Tsuchizaki-kō (土崎港) - The port for the city of Akita. Also an oil refining center.

F. Yamagata-ken

1. General Description

The only lowlands are found along the Mogami-gawa basin which develops into Shōnai-heiya. Shōnai-heiya is known for its abundant rice production. In the intermontane basin areas seri-

culture and silk textile manufacturing are carried out.

2. Yamagata - Prefectural capital. Marketing center of raw-silk and cocoons.
3. Yonezawa (米沢) - A center of silk textile industry.

## CHUBU-CHIHO (中部地方)

Area: 66,730 sq.kilometers  
Population: 13,883,605 (1947 Census)  
Density: 208 per sq. kilometers

### I. Position and Administrative Sub-division

A. Situated in about the center of Honshū, bounded in the east by Kanto-chihō and Ōu-chihō, and in the west by Kinki-chihō. It occupies the highest and widest portion of Honshū.

B. Administratively the region is divided into nine prefectures.

<u>Prefectural Name</u>	<u>Prefectural Capital</u>
Shizuoka-ken (静岡県)	Shizuoka
Aichi-ken (愛知県)	Nagoya (名古屋)
Gifu-ken (岐阜県)	Gifu
Yamanashi-ken (山梨県)	Kōfu (甲府)
Nagano-ken (長野県)	Nagano
Niigata-ken (新潟県)	Niigata
Toyama-ken (富山県)	Toyama
Ishikawa-ken (石川県)	Kanazawa (金沢)
Fukui-ken (福井県)	Fukui

### II. Physical Features

#### A. General Description

Chubu-chihō is the most rugged, highest, and broadest part of Honshū. It is here that the mountain systems of north and south came together to form a highland mass, lacking in order and symmetry. Narrow marginal plains fringe the coasts of

Japan Sea and the Pacific. For the sake of convenience, the region may be divided into following three sub-regions:

Tōkai region (東海地区)  
Tōsan region (東山地区)  
Hokuriku region (北陸地区)

B. Mountains of the Central Highlands (Tōsan-chihō)

1. Eastern borders

- a. Echigo-sammyaku (越後山脈)
- b. Mikuni-sammyaku (三國山脈)
- c. Kantō-sammyaku (関東山脈)
- d. Nasu-kazanchitai (那須火山地帯)
- e. Fuji-kazanchitai (富士火山地帯)

2. Nippon Alps (日本アルプス)

- a. Southern Alps - Akaishi-sammyaku (赤石山脈)
- b. Central Alps - Kiso-sammyaku (木曾山脈)
- c. Northern Alps - Hida-sammyaku (飛騨山脈)

3. Western highlands

- a. Hida-kōchi (飛騨高地)
- b. Hakuzan-kazanchitai (白山火山地帯)

C. Plains

1. The central highland region is interspersed with numerous inter-montane basins, such as,

- a. Ueda-bonchi (上田盆地)
- b. Matsumoto-bonchi (松本盆地)
- c. Suwa-bonchi (諏訪盆地)
- d. Kōfu-bonchi (甲府盆地), etc.

2. Tōkai region has the following narrow coastal plains:

- a. Sunen-kaigan-heiya (駿遠海岸平野)

b. Mikawa-heiya (三河平野)

c. Nōbi-heiya (濃尾平野)

3. Hokuriku region

a. Echigo-heiya (越後平野)

b. Toyama-heiya (富山平野)

c. Kaga-heiya (加賀平野)

d. Fukui-heiya (福井平野)

D. Rivers

1. General Description

All rivers have their origin in the mountains of the central highlands and radiate out in all directions. River current is swift, forming numerous gorges and deep ravines across the mountains. With an exception of Shinano-gawa, the rivers are unnavigable, but they are important as sources of hydroelectric power and of irrigation water for the rice fields. These rivers are easily flooded during the rainy seasons and they cause considerable damage every year.

2. Rivers draining into the Pacific

a. Fuji-gawa (富士川)

b. Ōi-gawa (大井川)

c. Tenryū-gawa (天竜川)

d. Kiso-gawa (木曾川)

3. Rivers draining into the Japan Sea

a. Agano-gawa (阿賀川)

b. Shinano-gawa (信濃川)

c. Kurobe-gawa (黒部川)

d. Jintsū-gawa (神通川)

e. Shō-gawa (庄川)

## f. Kuzuryū-gawa (九頭竜川)

### E. Shorelines

#### 1. Tōkai region

Near the eastern border is an arrowhead-shaped peninsula, Izu-hantō (伊豆半島), which forms the deep water bay called Suruga-wan (駿河湾) with the mainland. Moving along the coast westward through Enshū-nada (遠州灘) are two peninsulas. Chita (知多半島) and Atsumi-hantō, which embrace Mikawa-wan (三河湾) and Atsumi-wan. (渥美湾) Adjacent to this is the well-known Ise-kai (伊勢海).

#### 2. Hokuriku region

Other than Noto-hantō and the coast of Wakasa-wan (若狭湾), the shoreline is relatively smooth. No port of any importance is found here except Tsuruga (敦賀) in Wakasa-wan.

### F. Lakes

1. Suwa-ko (諏訪湖)
2. Fuji-go-ko (富士五湖)
3. Hamana-ko (浜名湖)

## III. Climate

### A. Japan Sea region (Hokuriku region)

The Japan Sea side is characterized by heavier than normal precipitation (80-120 inches). During the winter there is hardly a day without snowfall. The snow is heavier in the inland areas along the mountain slopes rather than along the coastal regions. The number of days of snowfall is less than in Ōu-chihō or Hokkaidō, but the amount of snow is greater than any of the regions facing the Japan Sea. It rains less in summer, but it does experience "Bai-u" season and the ravage of the August typhoon. The temperature is somewhat warmer than at the same latitude on the Pacific side.

Even in the winter it is relatively warmer than the central mountain region. This is because of the warm Tsushima current washing its shores. Summer temperature is about the same as in the Tōkai region.

#### B. The Pacific Ocean region (Tōkai region)

This is a region of extremely mild climate. There is hardly a change in the temperature throughout the year. The summer heat is always tempered by the cool breeze that blows in from the sea and also by frequent showers. Rainy days are more numerous in June and September. Winter days are clear and dry.

#### C. Central Highlands (Tōsan region)

Along with the Setonaikai borderlands, this is the region of the least precipitation. If there are rainy days, they come during the months of June and September, and the least in winter. Summer temperature runs up high, making it possible to grow rice, provided the conditions of the soil are suitable. But in winter the temperature falls below freezing point. It snows in winter, but not quite as much as in the Hokuriku region.

### IV. Industries

#### A. Agriculture

##### 1. General Description

Although the percentage of the arable land may be smaller than in Kantō-chihō, the overall arable land is the largest in Japan with 1,020,000 hectares. In the Tōkai region the per capita holding of the farm land is smaller than the national average; thus the farmer must of necessity engage in intensive agriculture. Farm lands are never allowed to lie fallow. However, this is not true in hokuriku-region where some of the biggest landowners in Japan are found. The principal crops in the Tōkai region are rice and wheat, although other farm products for food and industrial use are raised to a considerable extent.

In the central mountain basins where lands are generally infertile and difficult to irrigate, mulberry is mainly grown. Consequently, sericulture is by far the most important industry. But whenever the soil conditions permit, rice and wheat are grown.

Agriculture in Hokuriku differs considerably from that of the Tōkai region. Because of the poorly drained lowlands and relatively high temperature during the summer season, the farmers concentrate their effort in growing rice which is the staple as well as an important cash crop. A large amount of rice leaves the region annually for the markets in the great urban industrial areas on the Pacific side. Of the four prefectures, Niigata-ken has the highest percentage of paddy fields(70%). Unlike the Tōkai region, winter cropping is impossible because of the heavy snow.

## 2. Rice

Of all the regions, Chūbu-chihō produces the most rice, approximately 14,560,000 koku(1 koku about 5 bushels), corresponding to about 20% of the total production in Japan. Of this figure one-half is produced in Hokuriku of which Niigata-ken leads with 3,700,000 koku. The other prefectures facing the Japan Sea also produce more than their needs and the excess rice is shipped out to the needy sections.

The Tōkai region follows Hokuriku closely; in fact, Aichi-ken is next to Niigata in the amount of rice production, but because of the excessive consumption due to a large population, there is always a shortage which is supplied by the northern prefectures.

## 3. Wheat, Barley, and Naked Barley

a. Wheat( 小麦 ) - Raised in the Tōkai region. Ranks third in the amount produced, the first and second being Kantō and Kyūshū. Yearly production is about 720,000 koku.

b. Barley and Naked Barley( 裸麦 ) Grown also in the Tōkai region, especially in Aichi, Shizuoka, and Gifu.

#### 4. Other Grains

- a. Buckwheat (蕎麦), millet (粟), barnyard grass (のびえ) are raised principally in the central mountain region.
- b. Soyabean (大豆), azuki (小豆) are raised in Niigata and Nagano.

#### 5. Miscellaneous Crops

- a. Vegetables (野菜) - Nōbi-heiya
- b. Tea (茶) - Shizuoka-ken; mostly for export.
- c. Citrus fruit (柑橘) - Along the Tōkai region; most abundant in Shizuoka-ken
- d. Grapes (葡萄) - Yamanashi, Nagano, and Niigata-ken.

### B. Sericulture (養蚕業)

From the central mountain regions to the western Tōkai is the heart of Japan's silk producing area. The number of households engaged in raising silkworms was about 600,000, the total cocoon crop about 128,000 metric tons.

### C. Animal Industry

1. Horses and cows are not important as an industry.
2. In the western Tōkai centering around Nagoya, poultry raising has become very prominent. Approximately 20% of the total poultry products in Japan comes from this region.

### D. Forestry

#### 1. General Description

Forest products are one of the most important natural resources of the region. It occupies about 3,000,000 hectares, about 16% of the total forest area in Japan. This is trifle smaller than the forest coverage in Ōu-chihō. The greater portion of this forest may be classified as sub-tropical forest zone, but the trees in northern Niigata are those of the temperate zone. Also

in the mountains 500 meters above the sea level  
the forests of the temperate zone flourish.

2. Commercially important trees

a. Karamatsu (唐松) from Asama-yama area.

b. Japanese cypress from Kiso and Tenryū-gawa  
basins. (木曾, 天竜川盆地)

E. Fishing Industry

1. General Description

Yearly catch of the various marine life is valued at 60 million yen. Competes with Kyūshū for the second place in the total amount of catch with Hokkaidō ranking first. Fish is more heavily caught in the waters of Tōkai region than in the Japan Sea areas.

2. Fishes caught in the Tōkai region

a. Suruga-wan and Izu-hantō areas

Mostly deep-sea fishing with fleet bases along the shores of Suruga-wan and Izu-hantō. The fishes landed include bonita, tuna, shark, samma, mackerel, etc.

b. Ise-kai area

Fishing is mostly coastal with sardine, sunbream, flounder, etc., being commercially important species. Also, the shores abound in variety of shell-fishes.

c. Hamana-ko (浜名湖) and Atsumi-wan (渥美湾) areas are noted for artificial raising of eels.

3. Fishes caught along the Japan Sea coast

The coastal waters are plentiful with warm and cold water fishes, but because of the disadvantageous geographical as well as climatic conditions, the industry has not developed to the extent one finds in the Tōkai region. In the waters north of Noto-hantō, salmon is caught, and to the south of this peninsula, sunbream is the principal catch. Others are sardine, mackerel, squid, etc.

## F. Mining Industry

### 1. General Description

With an exception of oil in Niigata, the region is poor in mineral resources. Even the production of oil, when judged by American standards, is negligible.

### 2. Ores (鉱石)

- a. Sado-ga-shima - Gold (金)
- b. Kamioka - Lead (鉛), gold, silver (銀), copper (銅), Zinc (亜鉛)
- c. Ogoya - Copper
- d. Kune - Copper

### 3. Oil (石油)

- a. Important oil-wells are all located in Niigata-ken in the vicinity of Nishiyama (西山), Niizu (新津), and Higashiyama (東山).
- b. Refineries are located in Kashiwazaki (柏崎) and Niigata.
- c. The oil fields of this region are considered to have reached the point of exhaustion. The output for 1936 was as follow:

Akita fields (秋田油田)	1,583,900 koku (73.1%)
Niigata fields (新潟油田)	514,800 koku (23.8%)
Other fields (他の油田)	67,100 koku (3.1%)

## G. Manufacturing Industries

### 1. General Description

The manufacturing industry is an important industry of the region. It comprises 7% of the output of all industries combined. The output is valued at about 1,400,000,000 yen yearly. This figure corresponds to over one-fifth of the total manufacturing output of all Japan. The specialized

fields of industries by sub-regions are as follows:

Hokuriku - Silk textile, Lacquerware (漆器)

Central basins - Silk-reeling (製絲)

Tōkai - Cotton and woolen textile

(綿、毛織物)

Cotton spinning (紡績)

Machine and tools (機械)

Pottery (陶器)

etc.

## 2. Textile (織物)

Chūbu-chihō leads all other regions in textile manufacturing which is valued at approximately 570,000,000 yen per year. Of this Aichi-ken produces to the extent of 260,000,000 yen. Textiles include silk, cotton, mixed silk and cotton, woolen, and flax.

### a. Silk Textile

Fukui-ken and Ishikawa-ken are the two dominant prefectures in the silk textile field; the former produces 72 million yen worth, and the latter, 35 million yen worth annually. These two prefectures together manufacture over 80% of the silk cloth exported to foreign countries. Other than natural silk, rayon is manufactured to the value of 20 million yen a year.

### b. Cotton, Woolen, and Mixed Cotton and Silk

Nagoya and its vicinity are the manufacturing centers.

### c. Flax cloth

Manufactured in Ishikawa and Toyama-ken

## 3. Raw Silk

Yearly output is valued at about 360 million yen (36% of the total of Japan). Nagano-ken produces 170 million yen worth, 90% of which is exported. Other raw-silk prefectures are Aichi, Yamanashi, Gifu, and Shizuoka.

#### 4. Cotton Spinning

The Tōkai region, especially Nagoya, is one of the two most important cotton spinning centers of Japan, the other being Ōsaka. Nagoya alone produces 78 million yen worth, well over 11% of the total production in Japan.

#### 5. Chinaware

Here again Aichi-ken leads with yearly manufacture valued at 30 million yen, corresponding roughly to 45% of the total in Japan. Gifu and Ishikawa-ken are also noted for fine pottery products.

#### 6. Lacquer-ware (漆器)

Ishikawa, Aichi, and Fukui-ken are prominent in this field with combined production valued at well over 10 million yen.

#### H. Hydroelectric Power

Terrain conditions are most favourable for the generation of hydroelectric power. However, one disadvantage is that it rains less in winter when the need for electricity is the greatest. Generating capacities of the various rivers are as follows:

Shinano-gawa	1,200,000 hp.
Kiso-gawa	1,100,000 hp.
Kurobe-gawa	550,000 hp.
Jintsu-gawa	460,000 hp.
Shō-gawa	430,000 hp.

#### V. Transportation

##### A. Railroads

1. Chūo-honsen (Tōkyō-Nagoya via mountain route)
2. Tōkaidō-honsen (Tōkyō-Kōbe via coastal route)
3. Hokuriku-sen (Maibara-Naoetsu)

#### 4. Shinetsu-sen (信 越 線) (Takasaki-Niigata)

### B. Marine Transportation

#### 1. Hokuriku

Because of the adverse climatic conditions and the lack of decent ports, both the overseas and the coastwise sea transportation are not worthy of mention.

#### 2. Tokai

Nagoya and Shimizukō are the only ports which have the facilities to accommodate large ocean-going ships. Nagoya's foreign trade amounts to 120 million yen and domestic trade to about 130 million yen annually. Shimizukō is known as a tea exporting port. Annual export of tea is valued at about 47 million yen.

### VI. Population

The Tokai region has the most population followed by the Hokuriku region. The least number of people is found in the central mountain region. There are eleven cities in Tokai, seven cities in Hokuriku, and four in the central mountain region.

### VII Cities and Towns

#### A. Shizuoka-ken

##### 1. General Description

Because of its superb climate and numerous hotsprings, Izu-hantō is considered to be an ideal place for health and summering. Along the coastal plains, agriculture, horticulture, sericulture, and various types of manufacturing industries are well developed. Also fishing is very brisk in the neighboring waters.

2. Shizuoka - Prefectural capital. The center of tea refining.

3. Shimizukō (清水港)- Tea exporting port.

#### 4. Hamamatsu (浜松)

An industrial city of considerable repute. Some of the products are cotton textile, musical instruments, hats, etc.

#### B. Yamanashi-ken

##### 1. General Description

The prefecture is very mountainous with two main population clusters, the Kōfu and Gunnai basins. Silk-reeling and silk textile manufacturing are the two important industries.

#### 2. Kōfu (甲府)

Prefectural capital. A market center for raw-silk. Also noted for crystal works and production of wine.

#### C. Aichi-ken

##### 1. General Description

The eastern half with the exception of the narrow coastal strip is very mountainous. Nōbi-heiya which spreads in the northwestern direction has the highest concentration of population. It is here that the third largest city in Japan, Nagoya, is found. Also industrially, this is the most advanced section of the entire Chubu-chihō, constituting one of the four important industrial nodes in Japan. Industrial activities are varied, but the manufacturing of cotton textile, small machines, and tools leads all others.

#### 2. Toyohashi (豊橋)

A former castle town of the Matsudairas, now known for its production of raw-silk.

#### 3. Handa (半田)

Well known for its brewing industry.

#### 4. Nagoya (名古屋)

Prefectural capital. Sometimes called Chūkyō(中京) between Tōkyō and Kyōto. This city is the center of the so-called Chūkyō Industrial Node (中京工業地帶). Its manufactures in 1940 were as follows:

Textile	194,529,000 yen
Metal	33,478,000 yen
Machine & Tool	161,640,000 yen
Pottery	28,317,000 yen
Lumber	36,274,000 yen
Chemical	48,486,000 yen

Of the above various products, the principal export was potteries.

#### D. Gifu-ken

##### 1. General Description

The Hida highlands cover the greater portion of the prefecture, but Nōbi-heiya extends into the southern margin, providing the prefecture with important agricultural lands. The important industries are raw-silk, silk textile, paper(Mino-gami), etc. In the highlands sericulture is mainly pursued.

##### 2. Gifu (岐阜)

Prefectural capital. The principal manufactures are textiles, paper lanterns, and umbrella made of Mino-gami.

The city stands on the banks of Nagara-gawa(長良川). It is a thrilling experience to ride down the rapids of this river and enjoy the wonderful scenery on the way. On the broader reaches of the river near the city, cormorant fishing is a popular sport. Boats go out at night with blazing fires in iron baskets. The trout(鮎 ayu) are attracted by the light, then the cormorants are put into the water with cords or rings around their necks. This prevents them from swallowing any but the small fish. The birds learn to know their own number, and will fight if put into the river in the wrong order.

The Tōkaidō Railroad climbs from Gifu to the pass of Sekigahara(関ヶ原), where Tokugawa Iyeyasu met and defeated the supporters of Hideyoshi's son, and thus, established the Tokugawa rule which lasted for over 250 years.

3. Ōgaki

(大垣)

Rice marketing center; also known for its manufacture of cotton and woolen textiles.

4. Kagamiga-hara

(各勢原)

Formerly an army airbase.

E. Nagano-ken

1. General Description

The prefecture is located in about the center of Chūbu-chiho. The terrain is characterized by its rugged nature, interspersed with numerous basins. Important rivers such as Tenryū, Kiso, Shinano, all have their origins in the mountains of Nagano, and because of the swiftness of the current, they are utilized to generate electricity. Also because of its conducive climate and beautiful surroundings, health resorts are numerous. In the basins mulberry is the principal crop which makes Nagano the leading prefecture in sericulture and silk-reeling. Lumber, too, is an item of great economic importance.

2. Nagano

(長野)

Prefectural capital and a great silk market.

3. Okaya

(岡谷)

Silk-reeling center.

4. Matsumoto

(松本)

Also a silk-reeling center, better known as an entrance to the Japan Alps.

F. Niigata-ken

1. General Description

The prefecture just about covers one-half of the entire Hokuriku region. Echigo-heiya is famous for growing rice, a large portion of which is shipped outside of the prefecture. It is also known for its oil-fields and silk textile.

2. Nagaoka

(長岡)

A market center for rice.

3. Niizu

(新津)

An important oil center as well as railway junction point.

4. Niigata

(新潟)

Prefectural capital. It was one of the five cities which were opened to foreign residence, but because of lack of good port facilities no foreign ship stopped here. Recent improvement of the port facilities is inducing the larger ships to stop here. Goods shipped from here are mainly oil and rice. It also manufactures various chemicals and machineries.

5. Sado-ga-shima (佐渡島)

An island of about 330 square miles with the population of about 106,300. It has a dialect of its own. In ancient days, it was a famous place for exiling political enemies. Hence, the Japanese for "exile" is "shima-nagashi", meaning "to be sent to the island". Near the town of Aikawa (相川) are famous gold and silver mines, operated since 1601.

G. Toyama-ken

#### 1. General Description

The prefecture is surrounded by mountains in three directions and opened on the Japan Sea side. Kurobe, Jintsū, and Shō-gawa flow northward providing Toyama-heiya with the irrigation water which enables the farmers to grow enough rice to ship out to deficit regions. Because of the swift current of the above rivers numerous hydroelectric generating plants are found at the upper streams. Some of the outstanding products other than rice are patent medicine, lacquer-ware, and bronze ware.

2. Toyama

(富山)

Prefectural capital. Its patent medicines have been famous since the 17th century.

3. Takaoka

(高岡)

A well-known commercial center. It is noted for its bronze ware and a lacquer ware called "Takaoka-nuri".

H. Ishikawa-ken

## 1. General Description

The southern part of the prefecture is covered with the western extension of the Hida highlands where the famous Haku-zan towers 8,846 feet above sea level. This a favourite peak for mountain climbing. Along the coast of Kaga-heiya are many sandbars and lagoons. In the north, Noto-hantō projects out into the sea. The plains produce much rice and has the densest population concentration in the Hokuriku region. The most well-known product of the prefecture is the "habutae" silk.

## 2. Kanazawa (金沢)

Prefectural capital and the largest city in the Hokuriku. It was the former feudal seat of the Maeda family. The castle grounds are now called Kenroku-kōen, which is considered to be one of the three most beautiful parks in Japan.

## I. Fukui-ken

### 1. General Description

Being contiguous to Ishikawa-ken, the southern portion is also a part of the Hida highlands. Fukui-heiya, which is also a rice growing country, spreads out along the lower streams of Kuzuryū-gawa, and its branch stream, Hino-gawa. Rice, habutae silk, and paper are the principal products.

## 2. Fukui (福井)

Prefectural capital. Silk weaving began in 18 century, and its habutae is famous.

## 3. Tsuruga (敦賀)

Considered to be the best port on the Japan Sea. Regular steamship service was kept with Gensan, Joshin, and Seishin in Northern Korea, and with Vladivostok. Foreign trade in 1938 was as follows:

Total Export	8,508,000 yen
Total Import	2,047,000 yen

## Kinki Chiho (近畿地方)

Area: 32,986 sq. kilometers

Population: 12,144,451 (1947 Census)

Density: 368 per sq. kilometers

### I. Position and Administrative Sub-division

A. Beyond the western boundary lies Chugoku-chiho, and in the east, Chubu-chiho. The central portion bulges out southward into the Pacific forming a peninsula called Kii-hantō. To the west of this peninsula is the Kii Channel(Suido), beyond which lies Shikoku.

B. Administratively, the region is divided into seven prefectures, of which two of them are designated as "Fu" and the remaining five as "Ken".

	<u>Prefectural Name</u>	<u>Prefectural Capital</u>
Ōsaka-fu	(大阪府)	Ōsaka
Kyōto-fu	(京都府)	Kyōto
Hyōgo-ken	(兵庫県)	Kōbe (神戸)
Shiga-ken	(滋賀県)	Ōtsu (大津)
Nara-ken	(奈良県)	Nara
Mie-ken	(三重県)	Tsu (津)
Wakayama-ken	(和歌山県)	Wakayama

### II. Physical Features

#### A. General Description

The physical features of the region can be divided into the following sections:

Kii-hantō (紀伊半島) in the southern part;  
Tamba-kōchi (丹波高地) and Chugoku-sammyaku (中国山脈) in the northern part.  
Basins (盆地) in the central part.

Plains are all coastal plains(海岸平野)

Rivers in the north drain into either the Japan Sea or into Setonaikai (瀬戸内海) with the Tamba highlands and Chugoku-sammyaku forming the great divide.

Rivers in the south flow in all directions, originating in the mountains of Kii-sammyaku.

#### B. Mountains

##### 1. Northern highlands

a. Chugoku-sammyaku

b. Tamba-kochi

##### 2. Kii-sammyaku (紀伊山脈)

Geologically a much younger mountain than Chugoku-sammyaku, consequently more rugged and higher (1700-1800 meters). It belongs in the same mountain system as Akaishi in Chubu and Shikoku-sammyaku in Shikoku.

##### 3. The central basins

The basins are found in a rectangular area formed by two ranges-Kii and Chugoku- running latitudinally, and three ranges- Suzuka, Kasagi, and Kongo - running longitudinally. In the north are Omi and Kyoto-bonchi, and in the central portion are Iga and Nara-bonchi.

#### C. Plains - Plains are all coastal plains

##### 1. Ise-kai region (伊勢海) Ise-heiya (伊勢平野)

##### 2. Setonaikai region

a. Osaka-heiya (大阪平野)

b. Harima-heiya (播磨平野)

#### D. Rivers

##### 1. On the Japan Sea side

a. Asago-gawa (朝来川)

b. Yura-gawa (由良川)

##### 2. On the Setonaikai side

a. Yodo-gawa (淀川)

b. Kako-gawa (加古川)

3. On the Pacific side

a. Ki-no-gawa (紀川)

b. Yoshino-gawa (吉野川)

c. Arita-gawa (有田川)

d. Kumano-gawa (熊野川)

4. On the Ise-kai side

a. Isuzu-gawa (五十鈴川)

b. Kushida-gawa (櫛田川)

E. Shorelines

1. Japan Sea side

a. Wakasa-wan (若狭湾)

This bay is the result of down-faulting and a subsequent action by the sea. The shores present a typical appearance of the Ria-type shoreline with its long and deep indentations. They afford well protected harbors of which the outstanding ones are Shin-Maizuru, formerly the naval base, and Tsuruga, the only important commercial port on the Japan Sea side.

b. Amano-hashidate (天橋立) in Miyazu-wan (宮津湾)

A sand spit formed by the sand carried by the river and the strong northwest seasonal wind. It is about 2,000 meters long and 90 meters wide, projecting across the bay and is planted with rows of pine trees which greatly enhance the scenic value. This is counted as one of the three scenic spots of Japan, the other two being Matsushima and Miyajima.

2. The Pacific Side

a. Setonaikai (瀬戸内海)

The Setonaikai shores which come within the bounds of Kinki-chihō are smooth. Along the

coast are two narrow plains, Harima and Ōsaka, the latter facing Ōsaka-wan.

b. Kii-hantō (紀伊半島)

Both the western and eastern shores have numerous deep indentations characteristic of Ria-type shoreline.

c. Shima-hantō (志摩半島)

d. Ise-kai (伊勢海)

A bay with smooth shoreline bordered by narrow coastal plains which are westward extension of Nōbi-heiya.

F. Lake - Biwako (琵琶湖)

Japan's largest fresh-water lake formed by the sudden depression of the land.

### III. Climate

#### A. General Description

Latitudinally, Kinki-chihō lies between 33.5-35.5 degrees. Its climatic regions can be divided as follows:

1. The Japan Sea region
2. The Pacific region
  - a. Setonaikai borderlands
  - b. Kii-hantō region
  - c. Ise-kai region

#### B. The Japan Sea region

The winter climate resembles in many ways the climate of western Ōu and northern Chūbu in that this section of the country is snow-bound throughout the winter season. The humid air over the warm Tsushima current is carried over to the northern slopes of Chūgoku-sammyaku where it is cooled and the moisture deposited as snow.

Summer is cool, having an average temperature of about 77 degrees F. The amount of the rainfall in comparison with the winter precipitation is far less, although it is much more than the regions surrounding Setonaikai.

## C. The Pacific side

### 1. The Setonaikai borderlands

The rain clouds brought forth by the winter and summer monsoons are blocked by the surrounding mountains, and the rain falls on the outer slopes of these mountains. Consequently, the Inland Sea borderlands are region of the least rainfall in Japan. (Mean annual rainfall 40-60 inches)

### 2. Kii-hantō and Ise-kai coastal regions

Warm throughout the year with much rain during the summer season.

## D. The Central Basins

The climate is that of the continental type (大陸的) with considerable difference between the summer (79 degrees F.) and winter (39 degrees F.) temperatures. The amount of rainfall is normal with the mean annual rainfall of 80-120 inches.

## IV. Industries

### A. Agriculture

#### 1. General Description

Despite the areal limitation of the arable lands (16.3% of the total area) agriculture is well developed, because of its excessive population, high summer temperature, fertile lands, and good irrigation facilities.

Generally two crops are harvested in a year-rice in summer and naked barley or wheat in winter.

#### 2. Rice

The most important agricultural product. Hyōgo-ken produces the most followed by Ōsaka, Mie and Shiga.

#### 3. Wheat and Naked Barley

Next to rice, wheat is the most important crop followed by naked barley. Here also, Hyōgo-ken leads with half of the total production of wheat in Kinki-chihō.

Because of this, Hyōgo-ken is known for its shōyu and beer which use wheat and barley as raw materials.

#### 4. Vegetables

Vegetables are profitably grown near the big cities to supply the needs of the city-dwellers.

Diminutive farmlands near the cities are more suited for growing of vegetables which have quicker turnover than grain crops.

#### 5. Fruits

Because of the warm climate, various fruits are grown throughout the region. Of these, mandarin oranges in Wakayama are especially famous.

#### 6. Tea

The important tea growing regions are Uji in southern Kyōto, southern Shiga, and the mountain slopes of Mie.

#### B. Sericulture

The highlands of northern Kyōto, mountain slopes along Ise-heiya in Mie, and northern Wakayama are the important sericultural centers.

#### C. Animal Industry

Cattle raising is the important industry in this region in contrast to horses in Ōu-chihō. Hyōgo-ken leads all the other ken of the region, and ranks second, with Kagoshima first in the total number of cows. However, it should not be considered that these cattle are raised on a large scale on open pasturelands, but on a small scale of one or two by the farmers as draft animals. In addition to the above, poultry raising has become quite a flourishing industry in recent years.

#### D. Forestry Products

Due to plentiful rain and high temperature, Kii-sammyaku is noted for its luxuriant growth of trees. It has three important forest areas—Kōya, Yoshino, and Kumano.

1. Kōya Forest (高野森林)- Pine and Cypress
2. Yoshino Forest (吉野森林)- Cedar and Cypress
3. Kumano Forest (熊野森林)- Cedar, Cypress, and Fir

In the northern mountains, cedar, cypress, and oak are the principal trees.

## E. Marine Products (水產物)

Facing the seas in two directions - north and south - and also including the largest fresh-water lake within its boundaries, fishing and other marine industries (salt manufacturing and artificial pearl cultivation) are important natural resources. Hyogo-ken leads in fishing, followed by Wakayama-ken. Hyogo-ken also is the first in the amount of salt manufactured, and Ago-wan in Mie-ken is famous for its cultured pearls.

## F. Mining Industry

Kinki-chiho is especially poor in the mineral resources. Ikuno (生野) mine was once famous as a silver mine, but it is now exhausted and produces a negligible amount of copper and tin. The copper ore is refined at Naojima (直島). There is also the Akenobe (明延) mine near Ikuno. This is one of the few tin mines in Japan and about 81% (1 million yen) of the domestic production of tin comes from here.

## G. Manufacturing Industries

These are by far the most important industries of the region. Various industries are concentrated in the so-called Kei-Han-Shin Industrial belt which includes Kobe, Ōsaka, and Kyoto. The total annual output from this source exceeds 2,500,000,000 yen which is approximately one-third of the total industrial output of Japan.

### 1. Hanshin region (阪神地区)

This is the industrial belt along the Ōsaka Bay with Ōsaka and Kobe as nuclei and including:

Amagasaki (尼崎)

Nada-chiho (灘地方)

Suita (吹田)

Sakai (堺)

Kishiwada (岸和田)

## Akashi (明石)

Products are mostly manufactured in large factories using modern machineries. Principal items are as follows:

- Cotton spinning
- Cotton textile
- Cotton knitted goods
- Shipbuilding
- Machineries
- Steel and metal products
- Fertilizers
- Brewing
- Flour milling
- Sugar refining
- Chemicals
- Rubber products, etc.

Reasons for Ōsaka as an industrial center despite the lack of raw materials and coal:

- Level land on which the city is located provides adequate room for city growth and industrial expansion.
- Adequate facilities for water transportation both within and without the city, making it accessible to bulky fuel and raw materials.
- Large supply of available labor and capital.
- Excellent rail facilities.

### 2. Kyōto region

Kyōto and its surrounding locals are traditionally famous for its production of artistic goods, such as fine silk textiles, embroideries(刺繡), china-wares, lacquer-wares, etc., and unlike Hanshin region, the industrial plants are that of workshop type employing not more than a handful of workers.

### 3. Wakayama region

This can be considered as the southward expansion of the Hanshin region. Textile, lacquer-ware, lumber, etc., are the principal products.

### 4. Lake Biwa region

Since ancient days this part of the country has been noted for the manufacturing of flax and silk textiles, but in recent years rayon industry has become very important.

## 5. Ise-kai Coastal region

This is an extension of the Nagoya industrial belt. Outstanding industries are cotton spinning, cotton textile manufacturing, lacquer-wares, and china-wares.

# V. Transportation and Communication

## A. General Description

Because of the following reasons, the transportation facilities are well developed in this region.

1. Located in center of Japan
2. Sites for the capital cities, all located in this region
3. Includes the most important industrial regions

The principal national highways, such as Tōkaidō, Nakasendō, Hokurikudō, Sanyōdō, and Sanindō, all have Kyōto as their terminal point.

## B. Principal Railroads

### 1. Tōkaidō-sen (東海道線) 601.2 km

Starts in Tōkyō and terminates at Kōbe where it connects with Sanyō-sen.

### 2. Sanyō-sen (山陽線) 529.3 km

Runs from Kōbe to Shimonoseki along the Setonaikai shores. From an operational standpoint, Tōkaidō and Sanyō-sen are one line.

### 3. Kansai-sen (関西線) 175.1 km

Connects Nagoya and Ōsaka via southern route.

### 4. Sanin-sen (山陰線) 516.1 km

Starts from Kyōto and terminates at Shimonoseki along the Japan Sea coast.

## 5. Hokuriku-sen (北陸線) 366.5 km

This line begins from Maibara in Shiga and runs north along the Japan Sea coast to Naoetsu and connects Uetsu-sen and Ōu-sen.

This is the shortest route to Ōu and Hokkaidō from Ōsaka.

C. The inter-urban electric car system is highly developed in this region. The most heavy traffic is carried by the lines which connect Kyōto, Ōsaka, and Kōbe.

### D. Sea Transportation

1. Ōsaka - Terminal point for coastal lines

2. Kōbe - Terminal point for overseas lines

## VI. Commerce

### A. General Description

Because of its geographical position and its well-developed modern industries, together with its equally well-developed transportation system, commerce has always flourished in this region.

### B. Domestic Commerce (国内商業)

Ōsaka is the center of commerce in western Japan which includes Chūgoku, Shikoku, Kyūshū, and the Hokuriki region of Chūbu. Principal items shipped out from Ōsaka are cotton piece goods, metal goods, chemicals, sugar, fertilizers, etc., all being semi-finished or finished products.

Materials transported into Ōsaka are raw cotton, rice, coal, lumber, marine products, etc., all either raw materials or semi-finished materials.

### C. Foreign Trade (外国貿易)

Kōbe exports about 600,000,000 yen worth of goods and imports 750,000,000, yen, mostly raw materials. It is the greatest trading port in Japan, surpassing Yokohama.

## VII. Population

### A. The distribution of population.

The distribution of population generally coincides with its complicated geographical features. The greatest concentration is found in the central plains and basins where industry, commerce, and transportation facilities are well developed. It becomes sparse as one goes north or south into the mountain areas.

B. The latest census report (Oct. 1, 1947) shows the following figures:

1. Total population	12,144,451
2. Density	368 per sq. kilometers
3. Cities with population of 100,000 or over:	
a. Ōsaka	
a. Ōsaka	1,559,310
b. Kyōto	999,396
c. Kōbe	607,202
d. Amagasaki (尼崎)	232,755
e. Sakai (堺)	194,049
f. Himeji (姫路)	197,452
g. Wakayama	171,800
h. Yokkaichi (四日市)	112,433
i. Nishinomiya (西宮)	108,707

## VIII. Cities and Towns

### A. Shiga-ken

#### 1. General Description

The prefecture is bordered by mountains in all directions and in the center is the depressed area called Ōmi-bonchi which is largely taken up by Biwa-ko. Lake Biwa which is so-called because of its resemblance to the Japanese instrument "biwa" is the largest lake in Japan. Unlike the other lakes in Japan which are mostly of volcanic origin, this lake was formed by tectonic depression, and tradition says it occurred in a single night in 268 B.C. when Mt. Fuji arose. It has a circumference of 235 kilometers and an area of 675 sq. km.

The water surface is 86 meters above sea level and the greatest depth which is in the northern part, is 96 meters. Towards Southwards the water becomes shallow, not exceeding 6 meters in depth. The lake has two outlets near the city of Ōtsu, one natural and the other artificial. The artificial canal connects the Lake with the city of Kyōto. The natural outlet is a river called Seta which flows into Uji-gawa; the latter river then combines with Yodo-gawa and empties into Ōsaka-wan. At the mouth of the lake where it flows into Seta is a dam which has been constructed for flood control. This water is used as a source of hydroelectric power and also for irrigation.

The narrow strip of lowlands around the lake is well developed and is quite famous for its cultivation of rice. Sericulture is also an important industry. Because of the climatic condition and relative purity of the lake water, the region is suited for rayon and other textile industries which have made considerable development in recent years.

## 2. Maibara (米原)

An important junction point of the Tōkaidō and Hokuriku lines.

## 3. Hikone (彦根)

An old castle town, and the home of the so-called Ōmi-shonin.

## 4. Ōtsu (大津)

The capital of the prefecture. It is a rice trading center as well as the center of lake transportation.

## B. Mie-ken

### 1. General Description

The northern and the western parts of the prefecture are mountainous leaving a narrow strip of coastal plain along the Sea of Ise. Rice is the principal crop on the plains, and mulberry and tea along the mountain slopes. Important manufacturing industries are cotton spinning, cotton textile, ceramics, etc.

In the southern mountains, timber is an important resource, whereas along the coast, fishing is quite

extensively undertaken. Especially, Ago-wan at the point of Shima-hantō is famous for cultivation of artificial pearl oysters. From Shima-hantō southward the shoreline shows deep indentations.

2. Yokkaichi (四日市)

A foreign trade port; one outlet for the products of Nagoya industrial belt. Principal industries are cotton goods and ceramics.

3. Tsu (津)

Prefectural capital. Principal industries are cotton spinning and cotton textile manufacturing.

4. Uji-Yamada (宇治山田)

This is the town in which the great shrine of Ise is located. The shrine consists of two main parts, the Gegū and the Naigū. The Gegū is dedicated to the Diety of Food and Clothing, the Naigū to Amaterasu-Ômikami, Goddess of the Sun, ancestress of the Imperial Family. Here is kept one of the three sacred treasures, the mirror, given by the Sun Goddess to Prince Ninigi when he descended to earth to reign, according to the Japanese mythology.

Futami-ga-ura, four miles from Yamada, is celebrated for the Myôto-Iwa, which symbolizes Izanagi and Izanami, progenitors of the Japanese Islands in mythology. The rocks are linked with a straw rope, a Shintô symbol, and are frequently pictured in Japanese art.

C. Kyôto-fu

1. General Description

The Tamba highlands cover the entire northwestern section, with hilly Yosahantō projecting out into the Japan Sea. The famous Amano-hashidate is found at the eastern neck of this peninsula. The Tamba area is famous for silk industries. It is here that the city of Kyoto is found with abundant scenic and historically famous sites.

2. Kyoto

Prefectural capital. It was the Imperial capital for nearly eleven centuries (784-1868).

Here centers the history and life of old Japan at its best, and the atmosphere is still retained. There are many workshop type of industrial plants throughout the city, employing only a handful of craftsmen producing such products as lacquer-wares, porcelain, bamboo-wares, silk textiles, etc., mostly for rich Japanese and tourists.

A few of the places of interest are as follows:

The Imperial Palace  
The Kinkakuji  
The Higashi-Honganji  
The Kyoto Imperial University  
Dōshisha University  
Kiyomizu-dera  
Hieizan  
Arashiyama  
Momoyama, etc.

### 3. Maizuru and Shin-Maizuru (舞鶴, 新舞鶴)

Located in Wakasa-wan on the Japan Sea side. Headquarters of the 4th Naval district of the Japanese Navy was at Shin-Maizuru.

### 4. Fukuchiyama (福知山)

The principal city in the Tamba highlands, and the center of silk industry in this region.

## D. Nara-ken

### 1. General Description

The prefecture is situated in the center of Kii-hantō and is mostly mountainous, leaving a small basin area in the north for settlements, the largest one being the city of Nara. Nara was the capital site before Kyōto(710-784), thus, the city and its vicinity abounds in scenic spots and historic sites. The industry is confined to agriculture, although a few textile mills are found.

### 2. Nara

Prefectural capital, but better known as the first permanent capital of Japan. Among the place to visit is the Nara Park which is the largest in Japan, and filled with tamed deer which beg for food. The park is filled with temples and other structures famous in Japanese history, religion and art.

The Daibutsuden, or Hall of the Great Daibutsu, covers a bronze statue of Buddha completed in 749 by employing slave labour. It is bigger than the Kamakura Daibutsu, being 53.5 feet high, 28.7 feet across the shoulders; the thumb is 4.5 feet long, the nose 3.9 feet, and nostril 3 feet in diameter.

Nara is the largest center in Japan for the former outcast class called Eta, which means filthy. Theories as to their origin vary, one being that they are the descendants of prisoners of war, possibly Koreans; another that they were cast out for professions reckoned unclean by Buddhism, i.e. handling hides, dead bodies, etc. During the Tokugawa period they were called Hinin, meaning "not people", and were not counted in the population. After the Restoration they were included in the population and called Shinheimin or "New Commoners". About 1917 they became extremely class conscious and organized a society called "Suihei-sha".

### 3. Mt. Yoshino (吉野山)

One of the most famous places in Japan for its cherry blossoms.

## E. Wakayama-ken

### 1. General Description

The prefecture covers the western half of Kii-hantō. It is mostly mountainous with the exception along the river, Kino-gawa, where narrow strips of lowlands can be found. There are many deep indentations along the coast with its attendant scenic beauties. Because of the lack of farmlands, the inhabitants turn to the sea for their food and livelihood. Others leave their homes and seek ways for better living in other prefectures and in foreign lands. Fishing and lumbering are the two important industries, but on the narrow plains along Kino-gawa, sericulture and cotton textile manufacturing are undertaken. On the hill-slopes of Kino-gawa and Arita-gawa, tangerine orchards are found.

### 2. Wakayama

Prefectural capital. Lumber and cotton textile are the important manufactures.

### 3. Shingū (新宮)

Situated at the mouth of Kumano-gawa and is the center of the lumber industry.

#### F. Ōsaka-fu

##### 1. General Description

The prefecture has the smallest area, but it has the highest concentration of population. A large portion of the prefecture is arable lands with excellent irrigation facilities, so it is an important rice-growing region in Kinki. Commerce and manufacturing industries are well developed.

#### 2. Ōsaka (大阪)

Prefectural capital. This is the second largest city in Japan with the population of about 1,560,000 at present. (Before the war it was over 3 million.) The city is situated on the delta of Yodo-gawa and intersected by a remarkable network of canals and rivers crossed by over 1,300 bridges, but the city is smoky and dirty.

The city, as mentioned previously, is the center of commerce, transportation, and industry in western Japan. Most of the factories are lined up along the banks of Yodogawa. Port facilities are up-to-date, but is accessible only to small coastal ships. Principal exports are cotton textile and other manufactured goods. Principal imports are raw cotton, wool, semi-finished steel, etc.

#### 3. Sakai (堺)

#### Kishiwada (岸和田)

Both are industrial cities lying to the south of Ōsaka.

#### G. Hyōgo-ken

##### 1. General Description

Ōsaka-heiya extends into the south-eastern section and is bounded in the north by a short range called Rokkō-sammyaku. This is the so-called Nada-chihō famous for its "sake" brewing and hot-springs. At the western edge on the slope of this mountain lies the city of Kōbe. To the west of this city along the Inland Sea extends Harima-heiya where white sand and shapely pine trees cover the beach, and together with its superb climate provides ideal

health and pleasure resorts. The principal industries in this area are textile and brewing.

In the Tamba highlands and Chūgoku-sammyaku area cattle-raising and sericulture are the outstanding industries.

2. Kobe (神戸)

Prefectural capital. Along with Yokohama this is the most important port in Japan. The trade is carried on mainly with the Far Eastern countries and South Sea area. Principal imports are raw-cotton, wool, pulp, machineries, oil, etc., and the exports, cotton manufactures, raw-silk, silk textile, rayon goods, machineries, etc. The total export in 1938 amounted to 774,038,000 yen and import, 706,257,000 yen.

3. Himeji (姫路)

A textile manufacturing town and a junction point for a railroad to the coast of the Japan Sea.

# CHŪGOKU CHIHŌ (中国地方)

Area: 31,679 sq. kilometers  
Population: 6,602,881 (1947 census)  
Density: 208 per sq. kilometers

## 1. Position and Administrative Sub-division

A. The region occupies the western peninsular portion of Honshū. The northern shores face the Japan Sea, and the southern shores, together with the northern coasts of islands of Kyūshū and Shikoku, enclose the beautiful Setonaikai.

B. Administratively the region is divided into five prefectures.

Prefectural Name	Prefectural Capital
Okayama-ken (岡山県)	Okayama
Hirosima-ken (廣島県)	Hirosima
Yamaguchi-ken (山口県)	Yamaguchi
Tottori-ken (鳥取県)	Tottori
Shimane-ken (島根県)	Matsue (松江)

## II. Physical Features

### A. General Characteristics

Chūgoku-sammyaku runs through the region latitudinally a little north of the mid-line and divides the region into Sanin district in the north and Sanyō district in the south.

### B. San-in District (山陰地方)

Chūgoku-sammyaku runs closer to the Sanin side, thus making the land inclined at a greater angle than in the Sanyō counterpart.

#### 1. Mountains

Hakuzan-kazan-chitai (白山火山地帶) runs parallel to Chūgoku-sammyaku.

Daisen (大山) (1713 meters) and Sambe-yama (三瓶山) (1126 meters) are the two active volcanoes belonging to this system.

## 2. Plains

No large plains in the Sanin district; numerous small plains developed along the rivers.

## 3. Rivers

Small rivers are numerous, all draining into the Japan Sea. The longest river is Gō-no-gawa (江川) (200 km.) whose waters are used for generation of hydroelectricity.

## 4. Shoreline

Resembling the Japan Sea side of Ōu-chihō, the shorelines are smooth with the exception of Shimane-hantō which projects out into the sea and encloses the two lakes, Lake Shinji and Lake Nakaumi.

## 5. Islands

Okino-shima (隠岐島), about forty-five miles north of Sakai in Shimane, comes under the prefectoral jurisdiction of Shimane-ken. It is made up of two groups of islands, the Tōzen and Dōgo. Principal industries are fishing and lumbering. One can reach the port of Chifuri in Tōzen in about five hours from Sakai.

## G. Sanyō District (山陽地方)

The incline of the land is much gentler on the Sanyō side. The plains are a little larger than on the Sanin side, and the shorelines have deeper indentations with consequent numerous small peninsulas, inlets, and off-shore islands.

### 1. Plains

- a. Okayama-heiya (岡山平野)
- b. Hiroshima-heiya (廣島平野)
- c. Tsuyama-bonchi (津山盆地)
- d. Miyoshi-bonchi (三次盆地)

### 2. Rivers

- a. Yoshii-gawa (吉井川)

b. Ōta-gawa (太田川)

c. Iwakuni-gawa (岩国川)

### 3. Shorelines

The shorelines are deeply indented with many islands along certain stretches.

a. Kojima-hantō (児島半島)

Kojima-wan (児島湾)

#### b. Hiroshima-wan

Itsukushima (Miyajima) (嚴島)

Eta-jima (江田島)

c. Shimonoseki-kaikyō (下関海峡)

#### D. Chūgoku-sammyaku

This is a low range with an average altitude of about 1300 meters. It was peneplained once and lifted again. The mountains have the appearance of rolling hills with granite rocks exposed at numerous places. It is conspicuously lacking in trees and other vegetations. In the mountains on the Sanyō side are two basins, the Tsuyama basin and Miyoshi basin.

## III. Climate

### A. San-in District

San-in district has the typical Japan Sea climate with northwest monsoon prevailing in winter accompanied by heavy snow. The precipitation is less than Hokuriku district, but much more than in the Sanyō district. Precipitation is heavier in the east than in the west. The winter temperature is lower than that of the Sanyō, but the summer temperature is about the same or slightly lower.

### B. Sanyō District

The Setonaikai borderlands are the region of least rainfall in Japan with a mean annual rainfall of about 40-60 inches. Summer climate is extremely mild with an average temperature of about 80 degrees F., but it does get cold in winter (40 degrees F.).

## IV. Industries - Better developed in Sanyō than in Sanin.

### A. Agriculture

#### 1. General Description

In spite of the lack of extensive plains and infertility of the soils, agriculture is an important industry. Every inch of the available land is thoroughly utilized and even the hill-sides are artificially terraced to raise crops. Rice fields are more numerous in Sanyō district than in Sanin. Summer crop is rice and winter crops are wheat and naked barley.

#### 2. Rice

The most important crop is rice with an approximate annual production of about 6 million koku (14% of the total of Japan) of which 73% is raised in the Sanyō district. Bōchō rice of Yamaguchi and Bizen rice of Okayama are especially famous.

#### 3. Wheat and Naked Barley

Raised as winter crops after the rice harvest. Here also the Sanyō district raises more of these two crops than in the Sanin district.

#### 4. I Reed

Cultivated in the eastern part of Hiroshima and in Okayama. I is manufactured into Japanese mat(tatami) covering. Three-fourths of the total production of Japan is raised in this region.

#### 5. Industrial Crops

Peppermint and pyrethrum are raised in Okayama and Hiroshima.

#### 6. Fruits

a. Peaches in Okayama

b. Citrus fruits in Hiroshima and Yamaguchi

c. Pears in Tottori and Okayama

### B. Sericulture

The farmers in Sanin region engage in silk culture to supplement their meager income from farming.

### C. Animal Industry

The smooth gradual slopes of Chūgoku-sammyaku provide good grazing ground for cattle, and Chūgoku-chihō is considered the foremost cattle country in Japan.

Most of the farmers raise cattle for beef and draft, particularly in Miyoshi and Tsuyama bonchi and in the area around Daisen. The number of the cattle in this region is about 25% of the total for Japan.

Hirosshima is noted for manufacturing of canned beef.

### D. Forestry

Because of the reckless cutting by the inhabitants, lack of rain, unsuitability of the soil, and expanding of the grazing ground, forestry in this region is not important.

### E. Marine Products

#### 1. Fishing Industry

Fishing industry is extensively carried out on both the Japan Sea side and Setonaikai coasts. Especially Setonaikai is considered the spawning ground for a number of coastal fishes such as, sunbream, sardine, Spanish mackerel, shrimp, etc., and their catches are considerable, amounting to 30-35 million yen a year. Also oysters, sea-weeds, and a variety of shell-fishes are cultivated along the shores. Shimonoseki is the fleet base for deep-sea fishing.

#### 2. Salt Manufacturing

a. Around the fringes of the Setonaikai are concentrated approximately 90%(10,000 acres) of the country's salt-fields. The three prefectures, Yamaguchi, Hiroshima, and Okayama produce an aggregate of 600 million pounds of salt per year.

b. Conditions which helped the development of the salt industry in this region:

1. Favorable climate - Less rain and comparative high temperature during summer when the industry is most active.

2. Moderate tidal range - The tidal range, of an average of 3 meters, permits periodic filling and draining of the salt-field troughs.

3. Gradual shallowness of the offshore suited for establishment of saltfields.

## F. Mining Industry

Coal from Ube (宇部) and Ōmine (大嶺) mines are about the only important mineral product of the region. Ube produces low grade bituminous coal mostly from undersea mines, and Ōmine is known for its anthracite coal. Annual production from these two mines amounted to about 2.5 million metric tons in 1935.

## G. Manufacturing Industries

### 1. General Description

Because of the easy transportation and ready availability of raw materials, manufacturing industries are much more active in the Sanyō district than in the Sanin: however, even in the former district, there is no so-called major industrial node.

### 2. Sanin District

- a. Tottori - Raw silk, silk textile
- b. Shimane - Raw silk, sake brewing, cotton spinning, cotton textile, paper, tile, chinaware, etc.

### 3. Sanyō District

- a. Okayama (岡山) - Kurashiki (倉敷) - Fukuyama (福山) area - Cotton spinning and cotton textile.
- b. Hiroshima - Kure (広島 - 吴) area - Brewing, canned beef, rayon, and shipbuilding and munition industries before the war.
- c. Tokuyama-Kudamatsu (徳山 - 下松) area - Fuel industry (Oil -refining and manufacturing of coal briquettes), paper, chemicals, locomotives, rail-wheel, etc.
- d. Ube-Onoda (宇部 - 小野田) area - Cement, fertilizers, etc.
- e. Shimonoseki-Hikojima (下関 - 彦島) area - Machineries, ship-building, fertilizers, ice-manufacturing, cement, sugar refining, etc.

## V. Transportation

### A. Land Transportation

1. Sanyō-honsen - From Kōbe to Shimonoseki along the Setonaikai coast.
2. Sanin-honsen - From Kyōto to Shimonoseki along the Japan Sea coast.
3. In addition to the above, there are four lines running north and south connecting the two trunk lines.

Kurashiki - Yonago

Tottori - Tsuyama - Okayama

Tsuyama - Kamishiro

### B. Sea Transportation

1. Shimonoseki - Moji ferry line
2. Uno - Takamatsu ferry line
3. Ports of Hiroshima, Onomichi

## VI. Commerce

### A. Domestic Commerce

Chūgoku-chihō comes within the Ōsaka commercial sphere; however, there are local commercial centers such as Shimonoseki, Hiroshima, Onomichi, and Okayama in the Sanyō, and Tottori, Yonago, and Matsue in the Sanin.

### B. Foreign Commerce

Foreign trade is conducted through Kōbe and to some extent through Shimonoseki, although there are a number of ports opened for foreign ships, such as Onomichi, Tokuyama, Hagi, Hamada, and Sakai.

## VII. Population

Population is sparse in the Sanin district with Tottori having 587,613 persons and Shimane, 894,357 persons. The Sanyō prefectures all have populations of over a million, with Hiroshima having over two million. Thus, three-fourths of the population are concentrated on the Sanyō side, making this section extremely congested.

This congestion has caused the people of the three prefectures on the Sanyō side to emigrate into foreign lands. Of the three, Hiroshima has the most number of people outside of its boundary.

Of the cities with 100,000 or more population, the Sanyō district has four, whereas Sanin has none.

## VIII. Cities and Towns

### A. Okayama-ken

#### 1. General Description

Population is concentrated in Okayama-heiya where rice, wheat, I reed, and various fruits are grown. From I reed is manufactured tatami coverings and various other decorative mats. In the northern Tsuyama-bonchi, cattle is raised. Salt fields are found along the Inland Sea shores. To the west of Okayama, the cotton industry has grown in recent years.

#### 2. Okayama (岡山)

Prefectural capital. Cotton and silk reelings, mat manufacturing, and shipbuilding are the principal industries. It also has numerous schools.

#### 3. Uno (宇野)

A town twenty miles from Okayama. A terminal port for the ferry running to Takamatsu in Shikoku.

#### 4. Tamashima (玉島)

Site of the Tama Shipbuilding Company which has five ways with a capacity for constructing large ships.

### B. Hiroshima-ken

#### 1. General Description

Chūgoku-sammyaku covers most of the prefecture. Because of this mountainous character, farm lands are predominantly dry lands specializing in such crops as naked barley, soya-beans, sweet potatoes, and citrus fruits. A few paddy fields are concentrated along the coastal areas. In the northern part is a basin called Miyoshi-bonchi which is well-known for cattle-raising. Hiroshima-wan is famous for its oyster and sea-weed cultivation.

#### 2. Fukuyama (福山)

Situated on Bingo-nada. Center of cotton industries as well as mat manufacturing.

### 3. Onomichi (尾道)

A very picturesque port, sheltered by an island. It is one of the ports opened to foreign trade, but the trade is not so brisk. The principal import item is oil; and the exports, canned citrus, and mats.

### 4. Kure (呉)

Situated at the southern extremity of Hiroshima-wan. Before the war, this was the site of a naval station of major importance. It contained steel works, arsenal, and shipyards. On the nearby island of Etajima was the Imperial Naval Academy. At Hiro a few miles east of Kure was the Naval airplane factory.

### 5. Hiroshima (廣島)

Prefectural capital. The city was completely demolished by the first atomic bomb ever to be dropped, but the city is now almost reconstructed. Before the war its manufacturing emphasized textiles, rayon, and cotton goods. The port of Hiroshima (宇品, Ujina) has been one of the chief embarkation ports in all of Japan's foreign wars including the last one.

### 6. Miyajima (宮島)

It is also known as Itsukushima. It ranks with Matsushima and Ama-no-Hashidate as one of the three scenic spots of Japan.

## C. Yamaguchi-ken

### 1. General Description

Yamaguchi-ken occupies the westernmost portion of Honshū. Chūgoku-sammyaku gradually becomes lower as it extends into Yamaguchi-ken, and at the western edge it turns into a plateau which provides an ideal grazing ground for cattle. Being bound in three directions by the sea, Yamaguchi is known for its extensive fishing industry and salt manufacturing. In the field of agriculture, rice and citrus fruits are the principal crops grown. Industrial cities have recently grown in the area bordering Setonaikai.

2. Iwakuni (岩国)

Situated a short distance off the Sanyō main railway. The city is famous for its Chinese style bridge which has a long series of undulations. The neighborhood of this bridge is especially picturesque when the river banks are white with cherry blossoms. In the nearby town of Marifu is a rayon factory.

3. Tokuyama (徳山)

Before the war this town was the chief fuel base for the Japanese Navy. In the nearby Kudamatsu, locomotives were manufactured.

4. Bōfu (防府)

Salt manufacturing center

5. Yamaguchi (山口)

Prefectural capital

6. Ube (宇部)

A rising industrial city producing coal, cotton goods, cement, etc.

7. Onoda (小野田)

Also an industrial city manufacturing cement, fertilizers, and industrial chemicals.

8. Shimonoseki (下関)

Situated on the strait of the same name at the western entrance to Setonaikai. It is an important foreign trade port as well as a junction point for both land and sea transportation. Ferries run from here to Moji across the strait. At present there is an underground tunnel connecting Shimonoseki with Moji. The industries are varied, fishing being the most important. Others are shipbuilding, fertilizers, ice manufacturing, steel, etc.

D. Shimane-ken

1. General Description

Mostly mountains except the narrow plains near Shinji-ko. Rice and raw silk are the chief products.

2. Matsue (松江)

Prefectural capital. Here Lafcadio Hearn taught for a while. His essay "In a Japanese Garden" contained in "Glimpses of Unfamiliar Japan" gives his impression of Matsue.

3. Taisha (大社)

Situated at the western edge of Izumo-heiya. This is the site of the great Shrine of Izumo. This shrine is said to be the holiest spot in Japan except Ise in Mie-ken. Japanese mythology ties this shrine with Susa-no-no-mikoto, the storm god and boisterous brother of Sun Goddess, Amaterasu. Actually this shrine represents the northern Asiatic origin of the Japanese people as against the South Sea origin which is represented by the shrine at Ise.

E. Tottori-ken

1. General Description

This prefecture has the least population in Chūgoku-chihō. Its narrow plains along the coast and its numerous rivers produce rice and raw silk.

2. Tottori (鳥取)

Prefectural capital. About 50 miles west of here is the famous Daisen which, because of its beauty, has been designated as a National Park.

## SHIKOKU CHIHŌ (四国地方)

Area: 18,772 sq. kilometers  
Population: 4,173,551 (1947 census)  
Density: 217 per sq. kilometers

### I. Position and Administrative Sub-division

A. Shikoku-chihō is an island region about the size of Switzerland. It is situated south of Setonaikai, and lies between Kyūshū in the west and Kii-hanto in the east.

B. Administratively, the region is divided into four prefectures.

<u>Prefectural Name</u>	<u>Prefectural Capital</u>
Kagawa-ken (香川県)	Takamatsu (高松)
Ehime-ken (愛媛県)	Matsuyama (松山)
Tokushima-ken (徳島県)	Tokushima
Kōchi-ken (高知県)	Kōchi

### II. Physical Features

There is evidence that Shikoku and Chūgoku were at one time a continuous land mass, but by the subsidence of Setonaikai they became separated, Shikoku becoming a separate island.

Physically the region resembles Chūgoku-chihō in that Shikoku-sammyaku runs through in east-west direction approximately through the middle, thus dividing the region into northern Shikoku and southern Shikoku, each with its distinctive features, culturally as well as geographically. Shikoku-sammyaku which includes such mountains as Tsurugi-san(1921 m.) and Ishizuchi-san(1955 m.) is considerably more rugged than Chūgoku-sammyaku.

In the northeastern peninsular section is another low range, Sanuki-sammyaku, and between this range and the central divide lies a triangular-shaped Tokushima-heiya through which flows Yoshino-gawa. To the north of Sanuki-sammyaku lies a hill-dotted plain of the same name. It is here that the population is most densely concentrated in Shikoku.

In southern Shikoku at the head of Tosa-wan is another plain of relative importance to the region, called Kōchi-heiya, where in some parts two crops of rice are taken in one year.

There is no volcano in Shikoku, although Aso-kazan-chitai runs through northern Shikoku. But several hot-springs are found.

As for the shorelines, the east and west coasts have many small indentations presenting Ria type shorelines. In the north, between two peninsulas, Takanawa and Sanuki, is a bay which includes two bodies of waters, Hiuchi-nada and Bingo-nada. In the south is Tosa-wan characterized by smooth coastline.

### III. Climate

#### A. Northern Shikoku

The climate of northern Shikoku closely resembles that of the Sanyō District in Chūgoku in that it has very little rain with warm summer and relatively cold winter. Because of this climatic condition salt fields are found, especially along the coast of Sanuki-hantō.

#### B. Southern Shikoku

The climate of southern Shikoku is very much like that of southern Kii-hantō in Kinki-chihō. It has high temperature and abundant rain (mean annual rainfall 80-120 inches), which enables some sections to raise two crops of rice a year. The southern slopes of Shikoku-sammyaku have a luxuriant growth of trees, whereas the northern slopes where erosion has deeply set in, are bare. Along the coastal areas one finds such subtropical plants as camphor and palms.

### IV. Industries

#### A. Agriculture

##### 1. General Description

The region has the least area of arable lands with approximately 3700 sq. km. (about 22% of the total area). Because of the excess population, agriculture is necessarily intensive and the per capita holding of land is very small, especially in Kagawa-ken where it is about 1.5 acres. These arable lands are concentrated along the coastal plains of Sanuki-heiya, Tokushima-heiya, Matsuyama-heiya, and Tosa-heiya. The fields in northern Shikoku suffer from lack of water. In order to supplement this shortage of water, irrigation ponds have been built, and these ponds form a distinctive land feature of the district. The area occupied by these ponds accounts for about 19% of the total paddy fields.

##### 2. Rice

The rice crop is small because of the fewer paddy fields, but per unit crop take-in is large, being more than 2 koku per tan of land. The yearly average crop in each prefecture is approximately as follows:

Ehime-ken	1,030,000 koku
Kagawa-ken	900,000 koku
Kōchi-ken	660,000 koku
Tokushima-ken	530,000 koku

In some parts of Kōchi-ken, two crops of rice are taken in one year. However, this is only about 10% of the total planted area of about 95,000 acres.

### 3. Wheat and Naked Barley

Naked barley is the crop next in importance to rice, followed by wheat. As in Chūgoku-chihō, these are planted in winter after rice is taken in. The average output of naked barley is as follows:

Kagawa-ken	6,700,000 koku
Ehime-ken	4,500,000 koku
Tokushima-ken	4,500,000 koku
Kōchi-ken	100,000 koku

### 4. Vegetables

All the prefectures grow a considerable quantity of vegetables, but because of abundant rain and warm climate, vegetables grow much faster in Kōchi than in any other prefecture. These early grown vegetables are shipped to Ōsaka-Kyōto area to supply the urban needs, and the income from this source amounts to about twenty million yen per year.

### 5. Tobacco

Tobacco is also a very important cash crop of the region. In this crop Tokushima-ken leads with yearly production valued at 2.5 million yen, followed by Ehime-ken and Kagawa-ken.

### 6. Fruits

Because of the warm climate, citrus fruits and others, such as pears and persimmons, are universally grown.

## B. Forestry

About 74% of the total area is classified as forest land. This represents about 6% of the total forested area of Japan.

The important forest areas are concentrated along the southern slopes of Shikoku-sammyaku where such trees as cryptomeria, pine, cypress, etc. provide good lumber materials.

### C. Aquatic Industries

#### 1. Fishing

##### a. The Pacific Coast area

The species of fish caught are mostly deepsea fishes, such as tuna, bonita, whale, etc. Bonita meat is dried and made into "katsuobushi" which is an essential condiment in Japanese cooking.

##### b. Setonaikai Coastal area

The catches are mostly small coastal fishes, such as sun-bream, mackerel, sardine, etc.

#### 2. Salt Manufacturing

Salt is manufactured along the Setonaikai shores in Kagawa-ken, Tokushima-ken, and Ehime-ken. The total quantity produced amounts to about 700 million pounds. This amount, together with that produced in Chūgoku, sufficiently supplies the daily needs of the entire population, but the salt for industrial use must be imported from overseas.

### D. Mining Industry

Shikoku-sammyaku is richer in mineral resources than Chūgoku-sammyaku, producing annually about 12 million yen worth of minerals. There are several mines producing copper, gold, silver, manganese, etc., but of these Besshi is the most famous. In 1936 Besshi produced 15.4% of Japan's total copper output, 3.5% of its gold and 5.5% of its silver. These ores are shipped to Niihama, a port town, and from there to Shisaka-jima where they are refined. The mine and the refinery were operated by the Sumitomo interests.

### E. Manufacturing Industries

Manufacturing Industries are not well-developed. Only in Imabari and Takamatsu does one find modern type cotton spinning and textile factories. Kochi is well-known for its production of the so-called rice-paper.

### V. Transportation

#### A. Land Transportation

Because of the mountainous character of the land, development of railway transportation has been greatly hampered. Of the seven regions, Shikoku has the least mileage rail, about 350 kilometers. However, this inconvenience has been supplemented by coastwise shipping lines and automobile roads. The principal railroads are as follows:

Sanyo-sen (讃予線)

From Takamatsu to Yawatahama connecting the principal cities along the Setonaikai coast.

Kōtoku-sen (高徳線)

From Takamatsu to Tokushima

Tokushima-sen (徳島線)

From Komatsushima to Ikeda via Tokushima

Dosan-sen (土讃線)

From Tadotsu to Kochi and to Suzaki.

## B. Sea Transportation

Sea routes are the vital life line to Shikoku region, with many good ports found along the Setonaikai coast. Heavy traffic is maintained between these ports and those on the mainland. The two most important ports are Takamatsu and Imabaru, the former being the terminal port for Uno-Takamatsu ferry, and the latter being the only open port in Shikoku.

## VI. Commerce

As in the case of Chūgoku-chihō, Shikoku's commercial activities are controlled by Ōsaka merchants. The local business centers coincide with port cities, such as Takamatsu, Matsuyama, Tokushima, Imabaru, etc.

## VII. Population

Following the general distribution pattern of southern Japan, viz., the population being concentrated along the axis connecting Keihin(Tōkyō-Yokohama) and Kammon(Shimonoseki-Moji) area, northern Shikoku is more populous than southern Shikoku.

Especially, the lowlands along the Kagawa coast and the vicinity of Matsuyama have the highest density of over 300 per sq. km. Of the cities with populations over 100,000, three (Takamatsu, Tokushima, Matsuyama) are in northern Shikoku and only one

(Kōchi) in southern Shikoku.

## VIII. Cities and Towns

### A. Kagawa-ken

#### 1. General Description

Next to Ōsaka-fu, Kagawa-ken has the smallest area (1859 sq. km.) of all the prefectures.

Its hill-dotted plains, which are irrigated by ponds, are intensively cultivated and produce large quantities of rice and wheat. Along the shores many salt fields are found, but they are especially concentrated in the vicinity of Sakaide. The salt taken from these fields corresponds to about one-third of the total production in Japan.

#### 2. Takamatsu

(高松)

Prefectural capital. It is also a chief port of contact with the main island. The city has a notable park (Ritsurin-Kōen) which was formerly the villa of the feudal lord, Matsudaira.

#### 3. Sakaide

(坂出)

One of the chief salt manufacturing area of Japan.

#### 4. Zentsūji

(善通寺)

Formerly, the headquarters of 11th division was located here. Also here was a PW camp where many Americans from Bataan and Corregidor, as well as marines from Wake and Guam were held.

### B. Tokushima-ken

#### 1. General Description

The eastern end of Shikoku-sammyaku covers almost the whole of the prefecture, leaving only narrow plains along the coast and Yoshino-gawa basin. Rice and wheat are raised, but their production do not stand out too prominently. Sericulture and tobacco cultivation are rather important here. In the southern mountain areas timbers and iron pyrite mines are found.

#### 2. Tokushima

(徳島)

Prefectural capital. It is reached by way of sea through Komatsushima, a port town seven miles away. Northeast of this city is the point nearest to Awaji-shima, forming the Naruto-kaikyō. This strait is less than a mile wide, and impeded by several islands through which the incoming and outgoing tides flow with thunderous roar. It is called Awa-no-Naruto or "Roaring Gateway of Awa".

3. Muya (撫養)

Salt manufacturing center.

C. Kōchi-ken

1. General Description

This prefecture comprises the old province of Tosa whose men with Satsuma(Kagoshima), Chōshū(Yamaguchi), and Hizen(Saga) men, ran the early Meiji government. The prefecture is very mountainous, and because of the mountain barriers, it has long been isolated from the rest of the country. Its population is sparse and industries are extractive, being primarily fishing and lumbering, although some modern industries such as cement and paper manufacturing, which utilize local raw materials, are found in the city of Kōchi.

2. Kōchi (高知)

Prefectural capital. The city has cement factories, paper and lumber mills whose products are shipped to other parts of Japan.

3. Suzaki (須崎)

A small well-protected port town.

D. Ehime-ken

1. General Description

Three-fourths of the prefecture is covered with the mountains of Shikoku-sammyaku, and leaves a diminutive plain in the vicinity of Matsuyama. Principal industries are paper manufacturing, sericulture, lumbering, and mining.

2. Matsuyama (松山)

Prefectural capital

3. Imabaru (今治)

The only open port in Shikoku and also the leading industrial city in Shikoku, manufacturing cotton products.

4. Besshi (別子)

One of the Japan's leading copper mines. Its ores are shipped to Shisaka-jima, a small island in Hiuchi-nada, for refining.

# KYŪSHŪ CHIHŌ (九州地方)

Area: 44,465 sq. kilometers  
 Population: 11,396,084 (Oct. 1947 census)  
 Density: 256 per sq. kilometers

## I. Position and Administrative Sub-division

A. Kyūshū-chihō is situated in the southwestern edge of the Japanese archipelago and is comprised of the island of Kyūshū and its adjacent smaller islands including the Ryūkyū chain (Nansei-shotō).

B. Administratively the region is divided into eight prefectures (including Okinawa-ken).

Prefectural Name	Prefectural Capital
Fukuoka-ken	(福岡県) Fukuoka
Saga-ken	(佐賀県) Saga
Nagasaki-ken	(長崎県) Nagasaki
Kumamoto-ken	(熊本県) Kumamoto
Ōita-ken	(大分県) Ōita
Miyazaki-ken	(宮崎県) Miyazaki
Kagoshima-ken	(鹿児島県) Kagoshima
Okinawa-ken	(沖縄県) Naha (那霸)

## II. Physical Features

### A. General Description

There are two mountain ranges, one in the north and the other in the central portion of the island, both running from northeast to southwest. These two ranges divide the island into northern Kyūshū, central Kyūshū, and southern Kyūshū. In addition to the above two mountain ranges, there are three volcanic zones which pass through Kyūshū. These are Hakusan-kazan-chitai (白山火山地帶) in the north, Aso-kazan-chitai (阿蘇火山地帶) in the center, and Kirishima-kazan-chitai (霧島火山地帶) in the south. The island is extremely mountainous leaving only three plains, Tsukushi (筑紫) in the north, Kumamoto in the central, and Hyuga-heiya (日向平野)

in southern Kyūshū along the east coast for any extensive farmlands. Shorelines are on the whole deeply indented, especially along the west coast, but good natural harbors are relatively rare.

## B. Northern Kyūshū

### 1. Mountains and Rivers

Northern Kyūshū covers the prefectures of Fukuoka, Saga, and Nagasaki. The low Tsukushi-sammyaku (average elevation 500-600 meters and rarely exceeding 1,000 meters) runs from northeast to southwest, not in a single continuous range, but in discontinuous blocks. Tsukushi-sammyaku is considered to be an extension of Chūgoku-sammyaku, and as such it has no angular appearance of Kyūshū-sammyaku in the south, but a smooth rounded appearance, indicating that it has reached an old age and is now in the process of being leveled into pene-plains. The mountains are granitic in structure and through these blocks of granite hills, the rivers, such as Onga-gawa (遠賀川) and others, flow in a northerly direction and drain into the Japan Sea. Along the southern fringe of this low range flows Chikugo-gawa (筑後川). This river flows westward and opens up a relatively wide plain of Tsukushi-heiya along its lower drainage.

### 2. Coastlines

The northwestern section of Kyūshū has one of the most well-developed coastlines, but provide the region with hardly a good port. The western end of Tsukushi-sammyaku extends into Hizen-hantō (肥前半島) which has numerous secondary peninsulas, some of which are:

Higashi-Matsura-hantō	(東松浦半島)
Kita-Matsura-hantō	(北松浦半島)
Nishi-Sonogi-hantō	(西彼杵半島)

These peninsulas form numerous bays, such as:

Karatsu-wan	(唐津湾)
Tomura-wan	(大村湾)
Chijiwa-wan	(千々石湾)

Ariake-kai

( 有明海 )

Shimabara-wan

( 島原半島 )

One other important bay is Hakata-wan ( 博多灣 ) in the north. The city of Fukuoka is located by this bay.

### 3. Islands

In the adjacent seas are many islands, but of these the most important ones are:

Iki

( 壱岐 )

Tsushima

( 対馬 )

Hirado

( 平戸 )

Gotō-shoto

( 立島諸島 )

Between Tsushima and Korea is Tsushima-kaikyō ( 対馬海峽 ), and between Iki and Kyūshū is Iki-kaikyō ( 壱岐海峽 ).

### C. Central Kyūshū

#### 1. Mountains

Central Kyūshū is that part of Kyūshū covered with the mountains of Aso-kazan-chitai. Here one finds many active volcanoes of which Aso-zan is the most famous. This volcano has a crater which measures 16 kilometers east-west by 24 kilometers north-south and is considered one of the greatest craters in the world. From this crater floor rise five new volcanic cones of which only one, Naka-dake ( 中岳 ), is at present active, and at least one reaches an altitude of 1592 meters. Within the larger crater several villages are found connected by railway with the city of Kumamoto. These villages are surrounded by excellent farmlands and grazing grounds. Other volcanoes belonging to this system are Kuju ( 九重 ), Yufu ( 由布 ), Tsurumi ( 鶴見 ), Futago ( 双子 ), etc., in the east, and Tara ( 多良 ) and Unzen ( 雲仙 ) in the west. There are also many hot springs of which the most famous are those in the city of Beppu on the east coast.

## 2. Plains and Rivers

There are two plains, one in the west and the other in the east.

a. In the west - Kumamoto-heiya through which flows Shira-kawa (白川).

b. In the east - Ōita-heiya through which flows Ono-gawa (大野川) and Ōita-gawa (大分川).

## 3. Shorelines

The shorelines are relatively smooth with Kunisaki-hantō (国東半島) forming Beppu-wan (別府湾) in the east, and Udo-hantō separating Shimabara-wan (島原湾) from Yatsushiro-kai (八代海) in the west.

## D. Southern Kyūshū

1. Kyūshū-sammyaku (九州山脈) which is considered to be an extension of Shikoku-sammyaku runs from northeast to southwest in the shape of the letter "S". This range which contains such high peaks as Sobo-san (祖母山) (1758 meters) and Ichifusa-yama (市房山) (1722 meters) is considerably more rugged than Tsukushi-sammyaku in the north. In southern Kyūshū one also finds Kirishima-kazan-chitai extending southward into the sea through the inner side of the Ryūkyū chain. There are many active volcanoes belonging to this system, such as Sakurajima (桜島), Kaimon-dake (開聞岳), etc.

## 2. Plains and Rivers

Rivers have their sources in Kyūshū-sammyaku flowing eastward or westward and the plains are developed along these rivers.

a. Of those rivers flowing eastward are:

Gokanose-gawa (五箇瀬川)

Ōyodo-gawa, etc. (大淀川)

b. Of those rivers flowing westward are:

Kuma-gawa

( 球磨川 )

Sendai-gawa, etc.

( 川内川 )

### 3. Shorelines and Islands

Generally the shorelines are smoother than those of northern Kyūshū. In the east, the district that faces Bungo-suidō presents a Ria-type shoreline with many small indentations. In the south are two peninsulas, Satsuma-hantō ( 薩摩半島 ) and Ōsumi-hantō ( 大隅半島 ), formed by subsidence of Kagoshima-wan ( 鹿児島湾 ). Within this bay is a small island of Sakura-jima ( 桜島 ) which became contiguous to the shore as a result of an eruption in 1914. In the west is Yatsushiro-kai ( 八代海 ) enclosed by Udo-hantō and Amakusa-shotō. Koshiki-jima ( 齋島 ), which comes under the prefectural jurisdiction of Kagoshima-ken, lies to the south of Amakusa-shotō.

### E. Nansei-shotō (Rettō) ( 南西諸島 )

Nansei-shotō is a chain of island lying between the East China Sea and the Pacific Ocean in a form of an arch. It is made up of the following four groups of islands:

Satsunan-shotō

( 薩南諸島 )

Okinawa-shotō

( 沖縄諸島 )

Tokara-rettō

( 吐噶喇列島 )

Sakishima-shotō

( 先島諸島 )

Satsunan ( 薩南 ) and Tokara ( 吐噶喇 ) are under Kagoshima-ken, whereas Okinawa and Sakishima comprise the prefecture of Okinawa. At present the islands south of 30° N. Lat. with the exception of Kuchi-no-shima ( 口之島 ), do not come under the political jurisdiction of the Japanese government.

The language of the inhabitants is quite different from the standard Japanese; in fact, it is quite incomprehensible. In addition to this, differences in the dialects among different islands are quite marked. This makes it doubly difficult to understand the Okinawans' conversation. Not

only the language but also customs and manners differ considerably from those of the mainland Japanese, and some aspects of their civilization lead one to believe that in former days they had closer contact with the Chinese than with the Japanese.

The islands are, on the whole, very infertile, but because of the warm climate and abundant rain, sweet-potatoes, sugar-canies, bananas, and pineapples are widely cultivated. The islands have been very important in the Japanese economy as a provider of cane sugar.

### III. Climate

Kyūshū-chihō has one of the most favourable climate in all Japan. Its mean annual temperature is about 60 degrees F.; January average about 46 degrees F.; and July averages about 77 degrees F. Such mild climate is attributable to its comparatively low latitudinal position, but also to the warm Kuro-shiwo (黒潮) (Japan current) which flows in the adjacent seas throughout the year. This current which travels northward along the eastern coast of Taiwan changes its course somewhat to the northeast, and as it approaches the island of Kyūshū, it branches out. The western branch travels along the west coast of Kyūshū, passes through Chōsen-kaikyō (朝鮮海峡) and washes the Japan Sea coast of the Japanese mainland. The eastern branch continues its flow northeastward along the southern coasts of Japan as far as about 37 degrees N. Lat. The temperature of this current ranges from about 30 degrees to 70 degrees F. which is considered to be very high. This current brings about warm and humid climate wherever it touches the land. The effect of this current is quite evident in Kyūshū with its consequent high temperature and high humidity. Rainfall is plentiful in Kyūshū with the exception of the regions bordering Setonaikai. The rainfall is heavier in summer than in winter, and more abundant in the south than in the north. The heaviest rainfall is experienced in that portion south of Kyūshū-Sammyaku facing the Pacific Ocean where the annual rainfall exceeds 2500 mm. In northern Kyūshū the annual rainfall averages 1500-2000 mm.

The climate of the Ryūkyū chain is that of the typical marine type climate, viz., a very small difference between the summer high and winter low. The summer high is about 81 degrees F. (July average) and the winter low is about 61 degrees F. (February average). The reasons for this high temperature are that the islands are (1) situated at lower latitudes, (2) warm Japan current surrounds the islands, and (3) land influence is negligible because of the smallness

of the size of the islands.

#### IV. Industries

##### A. Agriculture

###### 1. General Description

Along with the manufacturing industries, agriculture is the most important industry of the region, although its development has been impeded greatly by sprawling mountains such as Tsukushi, Aso, Kyūshū, and Kirishima covering most of the island. In spite of this physical handicap, the region is favoured by climate ideal for agriculture, and this has made Kyūshū the important farming area in Japan. With the exception of Okinawa, the yearly agricultural output of each prefecture has been valued at 30 million yen as follows:

Fukuoka	70,290,000 yen
Kagoshima	68,381,000 yen
Kumamoto	55,219,000 yen
Ōita	36,564,000 yen
Miyazaki	36,563,000 yen
Saga	36,453,000 yen
Nagasaki	31,435,000 yen
Okinawa	19,270,000 yen

Of the various crops raised, rice is the most important crop, followed by wheat and sweet potatoes.

###### 2. Rice

This is the most important crop raised. Fukuoka-ken leads with an yearly output of over 2 million koku (next to Niigata). Other prefectures producing over a million koku are Kumamoto, Saga, Ōita, and Kagoshima. Rice fields are more numerous on the plains of Tsukushi, Kumamoto, and Onga-gawa basin. In southern Kyūshū and Hizen-hantō, dry fields are more prominent.

###### 3. Wheat and Naked Barley

The above two crops rank next to rice in importance.

Fukuoka-ken produces over 1 million koku of wheat ranking next to Ibaragi and Gumma in Kwantō in its output. Naked barley is raised on the plateau land of Kumamoto-ken whose production is also over a million koku a year, ranking first in Japan. Other prefectures also produce wheat and naked barley to a considerable extent. In recent years wheat has increased its importance and the acreage for naked barley is gradually being reduced.

#### 4. Sweet potatoes

Sweet potato which is consumed as a substitute for rice and wheat is raised all over Kyūshū, but most abundantly in Kagoshima, Okinawa, and Nagasaki.

#### 5. Other Agricultural Products

- a. Millet - Primarily raised in Kagoshima and Kumamoto.
- b. Soy beans - Raised mostly in Kagoshima, Kumamoto, and Nagasaki.
- c. Tobacco - raised in Kagoshima. Yearly income from this source is valued at 1,200,000 yen.
- d. I-grass - Raised in Ōita-ken. This grass is dried and manufactured into the tatami-covering.
- e. Sugar cane - Raised in Kagoshima and Okinawa-ken.

#### B. Sericulture

Sericulture is principally pursued in Kumamoto, Miyazaki, and Kagoshima, but on the whole, Kyūshū-chihō lags behind in the development of this industry compared with other regions.

#### C. Animal Industry

1. Horses are raised mostly on the plateau regions of southern Kyūshū in Kagoshima, Kumamoto, and Miyazaki. The region ranks third in the total number of horses, next to Ōu and Hokkaidō.
2. Cows are raised throughout the island, but they are most numerous in Kagoshima, Ōita, Kumamoto, and Fukuoka.

Hogs and goats are raised in Kagoshima and Okinawa.

#### D. Forestry

Lumber industry flourishes in the mountains of Kyūshū-

sammyaku, especially in the southern parts, in Kagoshima, Miyazaki, and in Hitoyoshi-bonchi in southern Kumamoto. The principal trees felled are pine trees in the northern parts, and cryptomeria, cypress, fir, etc., in the southern parts. These timbers are milled into building and construction materials as well as into charcoal. Kyūshū as a whole is also famous for producing bamboo from which various decorative articles as well as articles for everyday use are made.

#### E. Fishing Industry

The importance of fishing industry in Kyūshū is said to be second to that of Hokkaidō. Whereas in Hokkaidō the catches are predominantly cold water fishes, those caught in the waters of Kyūshū are of warm water species, such as sardines, yellow-tails, tunas, mackerels, squids, bonitas, etc. The fishing is mostly done on the west coast where indented shores offer good fishing ports. Of the prefectures, Nagasaki leads all the others with an annual catch worth 20 million yen, and competes for the second place with Yamaguchi and Shizuoka. The others are:

Kagoshima	10,000,000 yen
Fukuoka	8,000,000 yen
Ōita	6,000,000 yen
Miyazaki	5,000,000 yen
Saga	4,000,000 yen
Kumamoto	4,000,000 yen
Okinawa	3,000,000 yen

Also a few salt fields are found along the coast of Ōita facing Setonaikai.

#### F. Mining Industry - Kyūshū-chihō is comparatively rich in mineral deposits.

##### 1. Metallic Minerals

a. Gold and silver - Kushigino and Yamagano in Kagoshima  
Taiō (鰐生) and Bajō (馬上) in Ōita.

b. Copper - Very little mined. The principal mines are  
Makimine (槙峯) in Miyazaki and  
Saganoseki (佐賀関) in Ōita.

c. Tin - Taniyama (谷山) in Kagoshima and the regions of upper streams of Gokanose-gawa (五箇瀬川) in Miyazaki.

d. Refinery - Saganoseki is the refining center of the ores from various sources, not only those from Kyūshū but also from Shikoku, Taiwan, and Chūgoku.

## 2. Coal

Coal is the most abundant mineral product of the region mostly found in northern Kyūshū in the coal fields of Chikuho (筑豊), Kasuya (糟屋), Karatsu (唐津), Nagasaki (長崎), Miike (三池), and Sasebo (佐世保). Amakusa field is located on the island of the same name in central Kyūshū. The coal from these fields amounts to about 70% of the total coal output in Japan, the remainder being mined in Hokkaidō (22%) and from Honshū mines (8%). The estimated coal reserve in Kyūshū is said to be about 2,400,000,000 metric tons. In 1938, the total production of coal from Japan Proper was 44.6 million metric tons. Of the fields given above, Chikuho-tanden is the most important, producing annually about 15 million tons.

## G. Manufacturing Industries

The northern part of Kyūshū is one of the four principal industrial belts of Japan. Some of the factors which contributed to the industrial development of this region may be summarized as follows:

1. Rich coal field in the immediate vicinity.
2. Ready availability of hydroelectric power from the nearby rivers.
3. Abundant and cheap manpower.
4. Well-developed transportation facilities which make transportation of raw materials and finished products easy.
5. Proximity to the sources of raw materials and markets for manufactured goods in China, Manchuria, South Sea Islands, and India.

The industrial belt extends from Moji, a port town, to Orio along the littorals of Dōkai and includes such cities as Kokura, Tobata, Yawata, Wakamatsu. In addition to these cities, one may add Shimonoseki which is across the strait from Moji. Some of the

important industries are:

Steel - Yawata is the center.  
Shipbuilding - Shimonoseki and Nagasaki  
Cement  
Glass  
Paper  
Sugar-refining  
Flour  
Brewing (beer), etc.

Industries in other parts of Kyūshū are:

Textile

Cotton - Fukuoka and Kagoshima  
Silk - Fukuoka and Kagoshima

Cotton spinning - Fukuoka, Nagasaki, and Kagoshima

Chinaware - Saga and Kagoshima

Sake Brewing - Fukuoka along Chikugo-gawa

Cement - Yatsushiro in Kumamoto and Saeki in Ōita

Chemicals - Ōmuta in Fukuoka, Minamata in Kumamoto, and Nobeoka in Miyazaki.

Shipbuilding - Nagasaki and Sasebo in Nagasaki-ken

## V. Transportation

A. Railroads are better developed in the northern parts. The three important lines are:

1. Kagoshima-honsen - Runs from Moji to Kagoshima via the west coast.
2. Nippo-sen - Runs from Kokura to Kagoshima via the east coast.
3. Nagasaki-sen - Kagoshima-honsen branches off at Tosa and to Nagasaki.

## B. Marine Transportation

Shipping lanes in the northern Kyūshū have been kept busy because of its (1) relatively good ports, (2) strategic location in relation to the continental countries, (3) rich coal fields, and (4) well-developed manufacturing industries.

The four important ports both for coastwise and overseas transportation are Moji, Wakamatsu, Hakata, and Nagasaki. In recent years Moji has increased its importance as a foreign trade port.

In the south is Kagoshima which is an important terminal point in the shipping with the islands to the south.

## VI. Commerce

### A. Domestic Commerce

The commerce of Kyushū comes within the influence of Ōsaka commercial sphere, but there are local centers, such as Fukuoka in the north, Kumamoto in the central, and Kagoshima in the southern Kyushū.

### B. Foreign Trade

Moji, Hakata, Wakamatsu, and Nagasaki are the principal ports through which foreign trade flows. Especially Moji has increased its importance in recent years as a foreign trade port with its annual imports amounting to 188 million yen and exports to 89 million yen (in 1938).

Trade is conducted mostly with Asiatic countries and South Sea areas. The main import items are ores and metals, petroleum and its products, industrial salt, machinery, crude rubber, raw cotton, raw sugar, etc. The principal items of exports are wheat, flour, paper, cement, sugar, pottery and glass, locomotives, rubber goods, electrical equipments, etc.

## VII. Cities and Towns

### A. Fukuoka-ken

#### 1. General Description

This is one of the richest prefectures in the country, the governorship being considered second only to Kanagawa as a political plum. Its ports are the focal points of transportation with the Asiatic countries as well as with Honshū. It includes rich coal fields, and an important industrial belt which specializes in heavy metal industry. In addition to this wealth, Hakata-heiya and a large portion of Tsukushi-heiya come within its boundaries, making agriculture as equally important as manufacturing and mining industries.

#### 2. Moji (門司)

This city is the entrance to Kyushū and the end of the short

ferry ride for train passengers from Shimonoseki. Now underground tunnels connect these two cities. In recent years it has become an important foreign trade port with the export-import trade of 277 million yen. The principal export and import items are listed elsewhere on these pages. Principal industries are among others: steel manufacturing, sugar refining, brewing of beer, flour milling, brick manufacturing, etc.

### 3. Kokura ( 小倉 )

This city lies adjacent to Moji and is an industrial town as well as railroad junction where Nippō-sen branches off from Kagoshima-honsen. The important industrial items are paper, sugar, fire-proof brick, steel, etc.

### 4. Tobata ( 戸畠 )

This is another industrial town sandwiched in between Kokura in the east and Yawata in the west. Its principal manufactures are steel, glass, machineries, sugar, etc.

### 5. Yawata ( 八幡 )

This is the site of the largest steel mill in Japan. The mill itself employs about 27,000 workers normally and manufactures about one-fourth of the pig-iron and 30-40% of the steel of Japan. Japan normally needs approximately 500,000 tons (metric) of pig-iron and 2.5 million tons (metric) of steel. Ores are imported from Korea, China, and Malay. Most of the coal, including that for coking purposes, comes from the adjacent Chikuho-tanden, but to make satisfactory coke, the domestic coal must be mixed with imported coal which is obtained from the Kaiping field in North China.

### 6. Wakamatsu ( 若松 )

This is a port situated at the tip of the peninsula which embraces Dokai. It is mainly a coal exporting port, but also an important foreign trade port, being primarily an importing port. In 1938, the value of the incoming foreign cargo was three times that of the exports. The exports were largely manufactured goods for the markets of eastern Asia, whereas imports were chiefly industrial raw materials and coal. Of the imports, ore and metals comprised 53% of the value of incoming cargo.

## 7. Fukuoka (福岡)

Prefectural capital. This is the largest city and the center of culture, education, and commerce in Kyushū. It includes Kyūshū Teikoku Daigaku and various other schools of higher learning. The city is made up of Hakata and Fukuoka, the former being the port for the city. Within the city and in its vicinity are many historical sites of the Mongolian Invasion which took place in 1274 and 1281. Across the bay at Najimawas an airport from where the commerical planes took off for Shanghai, Harbin and other points on the continent. The city is also known for manufacturing silk textile called Hakata-ori.

## 8. Kurume (久留米)

A textile city situated in about the center of Tsukushī-heiya along the bank of Chikugo-gawa. Its principal manufactures are "tabi" and cotton cloth called "Kurume-gasuri". It is a rice trading center.

## 9. Omuta (大牟田)

This is a city adjacent to Miike-tanden near the Fukuoka-Kumamoto border. Because of the available supply of coal for power, the city has a great concentration of industries, the important ones being cotton spinning, and chemicals, such as, dyes, nitrate fertilizer, ammonium sulphate, etc. Its port, Miike-kō, is a coal exporting port. Both the port and all of the factories were owned by the Mitsui interests who also owned the adjacent coal field.

## 10. Onga-gawa Valley (遠賀川流域)

This is where Chikuho-tanden is located and various mining towns such as Noogata, Iizuka, Goto-ji, Ida, Soeda, etc. are found. The coal is shipped by rail to Moji or Wakamatsu and from there by ships to other parts of Japan.

## B. Saga-ken

### 1. General Description

In the southeastern lowlands which are a part of Tsukushī-heiya, rice and wheat are grown. The rest of the prefecture is mostly mountainous, and in the central plateau region is the Karatsu coal field.

## 2. Saga (佐賀)

Prefectural capital as well as rice trading center. It is

also known for its "sake" and "shoyu" brewing.

### 3. Arita (有田)

This is a very picturesque town in the mountains near the western border. It is noted for producing chinaware called Arita-yaki. A large quantity of this in the form of western dinner sets were exported abroad.

### 4. Karatsu (唐津)

A popular resort town, and also a port through which coal from Karatsu-tanden is shipped out to other parts of Japan. It is also noted for pottery called Karatsu-yaki.

## C. Nagasaki-ken

### 1. General Description

The prefecture covers most of Hizen-hantō and also the adjacent islands. Because of the mountainous land surface, agriculture is limited to raising wheat and sweet potatoes. In order to compensate for this, the inhabitants engage in fishing very extensively, and Nagasaki is said to be one of the leading fishing prefectures.

### 2. Sasebo (佐世保)

A former naval port of major importance. It was here that the headquarters of the 3rd Naval District as well as naval shipyard was located.

### 3. Nagasaki (長崎)

Prefectural capital. It was through this port that the Dutch merchants were allowed to trade during the Tokugawa period. It is a foreign trade port, but it has lost its importance since trans-oceanic ships began making Moji their port of call. It is also a city of fishing and shipbuilding industries for which it still retains the predominant position. It is still fresh in our minds that the second atomic bomb was dropped on this city destroying most of the city's industrial facilities.

### 4. Shimabara-hantō (島原半島)

This peninsula is really the volcano, Unzen-dake, and its base. In the extinct crater of the volcano is a national park which has long been a popular summer resort for foreigners.

## 5. Iki and Tsushima (壹岐・対馬)

These two groups of islands come under the prefectoral jurisdiction of Nagasaki and they lie in the channel between Kyūshū and Korea. These two islands were considered strategically very important and were strongly fortified. Islands are mountainous leaving little land for agriculture, although some wheat, soya-bean, and cattle are raised. Thus, the primary occupation of the inhabitants is fishing.

## 6. Gotō-rettō (立島列島)

This group of islands also comes under Nagasaki-ken. Its principal industry is fishing with Fukae as its center.

## 7. Hirado (平戸)

This island was long the site of an English "factory" or trading post prior to the closing of Japan by the Tokugawa Shogunate in the early 17th century.

## D. Kumamoto-ken

### 1. General Description

The eastern and southern portions of the prefecture are mountainous leaving relatively well-developed plains along the rivers, Shira-kawa and Midori-gawa. Rice and sweet potatoes are the principal crops. In the northeastern portion is the famous Aso-zan where horses are raised along its slopes. Southern mountains are known for their lumber production with its center at Hitoyoshi in Hitoyoshi-bonchi.

### 2. Kumamoto (熊本)

Prefectural capital. It is the educational center in central Kyūshū with its various advanced schools of specialized learnings, such as pharmacy, engineering, medicine, etc. It is also a rice trading center.

### 3. Yatsushiro (八代)

The city is situated at the mouth of Kuma-gawa and serves as the lumber distributing center for those lumbers which are floated down the river from the rich forest areas in the hinterland. The city also includes cement factory and paper mills.

### 4. Minamata (水俣)

This is a city situated in the southwestern coast near the Kumamoto-kagoshima border. Its important industrial products are nitrate fertilizer and cement.

## 5. Hitoyoshi (人吉)

A lumber center in Hitoyoshi-bonchi in southern Kumamoto.

## 6. Amakusa-gunto (天草群島)

This is a group of hilly islands off the western coast of Kumamoto. It produces anthracite coal and high quality pottery clay.

# E. Ōita-ken

## 1. General Description

Central and northern Ōita are covered by Aso-kazan-chitai, and the southern portion by Kyūshū-sammyaku. Thus, in central Ōita are numerous hot springs, the most famous ones being those in Beppu. The lowlands are limited to narrow coastal plains facing Setonaikai, but agriculture is intensively carried out, producing mainly rice and wheat. This prefecture is relatively rich in mineral resources, producing gold in Bajō and Taiō, and copper in Saganoseki.

## 2. Nakatsu (中津)

A city at the mouth of Yamakuni-gawa. The principal trade items are rice and lumber. It also has cotton spinning mills. But the city is best known as an entrance to Yabakei, a famous scenic spot.

## 3. Ōita (大分)

Prefectural capital and the terminus for two cross island lines which bring much traffic.

## 4. Beppu (別府)

A city situated 9 miles north of Ōita, facing Beppu-wan and a well-known hot spring resort.

## 5. Saganoseki (佐賀関)

Site of a well-known precious and semi-precious metal refinery. Here, gold, silver, and copper ores collected from all over the island and from as far away as

Taiwan were smeltered and refined. In 1936, it produced 14% of the copper of Japan, 21.2% of its gold, and 10.5% of its silver.

## F. Miyazaki-ken

### 1. General Description

Aside from Miyazaki-heiya, the prefecture is covered mostly by mountains and plateaus. Thus, the percentage of arable land is the smallest in Kyūshū. Furthermore, because of its geographical location, it is isolated from the rest of the land and is the least populous section of Kyūshū. The census of 1947 shows that the prefecture has no city with a population of over 100,000. The shoreline is very smooth, offering no port of any importance. The industries are extractive, primarily being fishing, agriculture, lumbering, and mining, although in recent years development of transportation facilities has brought rayon and chemical industries in some sections.

### 2. Nobeoka (延岡)

An up-and-coming industrial town situated at the mouth of Gokanose-gawa. It manufactures nitrate fertilizer and rayon.

### 3. Miyazaki (宮崎)

Prefectural capital.

### 4. Miyakonojō (都城)

This is the central city in Miyakonojō-bonchi near the Miyazaki-Kagoshima border. It produces tea and cocoon. It is also an important railroad junction.

### 5. Aoshima (青島)

A small island a short distance off the southern coast. It is noted for having luxuriant growth of tropical and subtropical flora, quite different from those on the adjacent coast.

## G. Kagoshima-ken

### 1. General Description

The prefecture is made up of two peninsulas, Ōsumi and

Satsuma-hantō, and the islands to the south. Like any other prefecture in Kyūshū, Kagoshima is mountainous with lowlands developed only along the river basins. The principal agricultural products are rice on the lowlands and sweet potatoes, tobacco, mulberry, etc. on the plateau regions. The prefecture is also noted for horse and cattle-raising, ranking first among prefectures in the latter. The prefecture includes the old province of Satsuma which was ruled by Shimazu, one of the most independent families in Japan during the Tokugawa rule. The Satsuma-men, together with Chōshū and Doshū samurai, were the chief instigators who brought about the Meiji restoration. It should be also noted that the dialect of Kagoshima is so different that even people of the neighboring kens cannot understand it.

2. Kushikino ( 串木野 ) and Yamagano ( 山野 )

Site of a large gold mine.

3. Kagoshima ( 鹿児島 )

Prefectural capital and the former ancestral seat of the proud Shimazu family. It is noted for producing Satsuma-kasuri and Satsuma-yaki, the former being a cotton cloth of a special design and the latter, a type of pottery.

4. Satsunan-shotō ( 薩南諸島 )

This is the northern half of the chain of islands which lie to the south of Kyūshū and includes such islands, as Tane-ga-shima, Yakushima, Tokara-shotō, and Amami-shotō. Because of the mountainous character of the islands rice is not cultivated but sweet potatoes are grown everywhere and used by the inhabitants as their staple food. The industry is limited more or less to hog-raising and sugar cane growing. As for the customs and culture, the people of Tane-ga-shima and Yakushima are closely related to Kagoshima, but Ōshima people are more akin to those of Ryūkyū.

a. Tane-ga-shima ( 種子島 )

An island situated about 45 miles S.E. of Kagoshima and is the largest of the Satsunan-shotō group, being 87 miles in circumference. Here the Portuguese explorer, Mindez Pinto, landed in 1543, and first introduced to the Japanese the use of firearms.

b. Yaku-shima ( 屋久島 )

An island just southwest of Tane-ga-shima. It has several high mountain peaks, the loftiest being Miyanoura-dake. The Yaku sugi found here is an especially fine species of the cryptomeria.

c. Ōshima (大島)

This island is more accurately described as Amami-Ōshima to distinguish it from the many other Ōshima's, including the one in Izu-shichitō. Its principal town, Nase, is a stopping point for the boats from Kagoshima to Okinawa. Koniya at the southwestern tip of the island was a subsidiary naval base well-protected by an outlying island.

d. Tokuno-shima (徳之島)

This is an island with extremely primitive life, lacking even a wheeled vehicle until recent years. Ainu remains have been found here, showing that the Ainu's southward expansion has gone further than the Japanese orthodox historian will admit. There is a large cave at the eastern end of the island about one and a half miles in depth, whence flows an abundant stream of drinkable water. The island has no harbor worth mentioning. Habu, or poison adders, are especially abundant in the semi-tropical forests of this island.

As mentioned before, each of the small islands beginning at Ōshima and proceeding south, has its own language or dialect. Thus "arigatō" in Japanese becomes "oboro-daren" in Tokunoshima, and "nihei-beibiru" in Okinawa.

## H. Okinawa-ken

### 1. General Description

The name of this prefecture signifies "rope of islands" and was designated in 1879 when the Japanese government took complete charge. It is comprised of two groups of islands, the Okinawa group and Sakishima group, the latter being further divided into Miyako group and Yaeyama group. All in all there are about fifty-five islands with a total area of 864 sq. miles. This small area harbors about 600,000 people, and because of this excess population, a large number has emigrated into other countries, Hawaii and South Sea Islands in particular.

Okinawa was formerly known as Loo Choo. The former royal family, named Sho, is said to be the descendant of the exiled Minamoto Tametomo and a Loochoan princess. This family set up a feudalism in which political, military, and religious controls were uniquely combined to produce a system which lasted for more than three centuries, to be

overrun in the 17th century by the veteran Satsuma armies which had just returned from Hideyoshi's Korean expedition.

The Loochoan language which is considered to have come down from the same linguistic stock as Japanese cannot be treated in short space, yet a knowledge of even a word may be of interest to some students. In both family and place names in Loochoo, the character (城), read in Japanese either KI or SHIRO, is very common, and is always read GUSUKU in Loochoan. Thus, Miyashiro or Miyagi is pronounced Miyagusuku. Kanegusuku, Gusukuma, and Tamagusuku are a few examples. Other typically Loochoan names are Takamine, Tokashiki, Ueunten, Chinen, Sashiki, Dekusaku, etc.

The Loochoan language has only three vowels - ah, i, and u - so the older or uneducated people will change the pronunciation of Japanese words. "Okinawa" becomes Uchinawa; "tokei" becomes "tuchi"; and the like.

The chief products of these islands are red lacquer, sugar cane, sweet potatoes, and silk cloth called Okinawa-tsumugi, etc. Another interesting fact is that every rural home keeps pigs - a thing unknown in Japan Proper - plus the use of the pig and its blood in various primitive religious exercises. This may point to the Polynesian origin of the inhabitants, or it may be the custom inherited from the Chinese.

## 2. Naha (那霸)

Prefectural capital. The principal export is sugar.

## 3. Shuri (首里)

Site of the ancient palace of the Sho family.

# HOKKAIDO-CHIHŌ (北海道地方)

Area: 88,775 sq. kilometers  
Population: 3,852,850 (1947 census)  
Density: 43 per sq. kilometers

## I. Position and Administrative Sub-division

A. Hokkaidō-chihō is a rhombic-shaped island which lies to the north of Honshū beyond Tsugaru-kaikyō, and is comprised of Hokkaidō main island and a few adjacent islands. Formerly Chishima-retto came under Hokkaidō's administrative control, but at present it is a Russian territory.

B. Hokkaidō is the only administrative unit designated the name of "dō", but its administrative setup is essentially the same as "ken". With its capital at Sapporo, the island is divided into seven cities and fourteen sub-districts. These sub-districts are called "shichō" (支厅) and each has its central city or town where the administrative office is located. The seven principal cities are as follows:

Hakodate	(函館)
Sapporo	(札幌)
Ashigawa	(旭川)
Muroran	(室蘭)
Obihiro	(帯広)
Kushiro	(釧路)
Otaru	(小樽)
Rumoi	(留萌)
	(Incorporated after the war)

## II. Physical Features

### A. General Description

Next to Honshū, Hokkaidō is the largest island of Japan. Its maximum north-south distance is about 260 miles, and the

greatest east-west length is about 280 miles. It is rhombic in shape with a hook-shaped peninsula in the south-west. This peninsula is the closest approach to Honshū. The physical features, like other parts of Japan, are very rugged and mountainous. Only about 15-20% of the island is of sufficiently low relief to permit agriculture.

The island will be divided into following three regions for the discussion of its surface features:

Peninsular region

Eastern region

Central lowland region

#### B. The Peninsular Region

Long ago this hook-shaped peninsula was a continuous land with Ōu-chihō, but by subsidence of Tsugaru-kaikyō, it became separated. Nasu-kazan-chitai runs through this region in north-south direction and leaves many active volcanoes, such as Ezan, Komaga-dake, Yōtei-zan, etc., as well as numerous hot springs and crater-lakes (Shikotsu and Tōya-ko) which add to the scenic beauty of the region.

#### C. The Eastern Region

This is the main portion of the island of Hokkaidō. Here, the Ezo mountain system which runs in north-south direction is intersected by the Chishima-kazan-chitai in the form of a letter "T" at the center. The relief of this region is extremely complicated and rugged. The Ezo mountain system is made up of four ranges, Kitami, Hidaka, Teshio, and Yūbari-sammyaku. The Kitami and Hidaka form the axis which connects the northern and southern vertices of the rhombic-shaped island, and the Teshio and Yūbari run more or less parallel on the west to this axis ranges. Between these parallel ranges are several basins, such as Kamikawa, Nayoro, and Furano-bonchi. Chishima-kazan-tai includes such mountains as Meakan, Oakan, Ishikari-dake, Tokachi-dake, etc., and crater-lakes, such as Mashū and Kutcharo-ko. In the southeastern section are two extensive swampy plains, Tokachi-heiya and Kushiro-heiya.

#### D. The Central Lowland Region

This Y-shaped lowland is called Ishikari-heiya and it lies between the peninsular and the eastern regions. Formerly this lowland was under sea, forming a channel between the two regions, but by gradual filling with sand and ash from

the rivers and adjacent volcanoes, and also by the uplifting of the channel itself, it finally took the form of the present lowland. Consequently there are many swampy areas left even today, and this has retarded its use as farmland although much has been reclaimed. In the northern part, the soil base is sandy, whereas in the south, the principal soil constituent is volcanic ash.

### E. Rivers

All the rivers have their sources in the central mountain areas and emanate in all directions. One distinctive aspect of the Hokkaidō rivers is that they meander considerably and leave many oxbow lakes in the vicinity. These rivers serve as the sources of hydroelectricity and also as spawning grounds for salmon.

#### 1. Rivers that drain into the Japan Sea

a. Ishikari-gawa (石狩川)

b. Teshio-gawa (天塩川)

#### 2. Rivers that drain into Okhotsk Sea

Tokoro-gawa, etc. (常呂川)

#### 3. Rivers that drain into the Pacific Ocean

a. Kushiro-gawa (釧路川)

b. Tokachi-gawa (十勝川)

### F. Shorelines

With the exception of two bays, Otaru-wan and Uchiura-wan in the peninsular region, the shorelines are on the whole smooth with very little indentation. Well-arched sandy beaches with numerous sandbars and lagoons are the conspicuous aspects of the shoreline.

## III. Climate

The climate of Hokkaidō resembles that of the north-eastern part of New England and the Maritime Provinces of Canada. Summer is short and cool, the average temperature for the warmest month ordinarily being below 70 degrees F. Winter weather is subject to change, but many overcast days with much snow and rampant winds are characteristic. The first snow falls usually in late October or early November and the last snow of the year in the latter part of April or early May. The ground is covered with snow

throughout the winter period to the depth of ten to twenty inches, being much deeper on the peninsular and central lowland regions than to the east of the central mountain chain. The temperature on the west coast area tends to be slightly warmer than the eastern coast because of the warm Tsushima current washing the shores of the Japan Sea side. As for the rainfall, Hokkaidō is one of the regions of least rainfall and the average yearly rainfall registered at various stations do not exceed 40 inches. Rain is more abundant on the west coast during the winter half year, whereas on the east coast, September is the wettest month. The east coast along the Pacific Ocean is also noted for its heavy fog during the summer season. This fog, called "gasu" by the Japanese, is one deterrent which limits the agriculture possibility of the region.

#### IV. Industries

##### A. General Description

Until the turn of the century fishing remained the chief economy of Hokkaidō. However, after the Restoration, the Japanese government seriously began undertaking the development of the island's natural resources and at the same time relieve some of the population pressure at home. Much inducement was required to force the Japanese to settle in this cold country, such as free land, bonus, exemption from taxation, etc. The result was that in 60 years' time, 1870-1930, about 2.7 million new Japanese colonists arrived to start a new life. Since then the population has been increasing and at present there are 3.8 million people making their homes in various parts of the island. These people came not only to exploit the marine resources but also to engage in agriculture, forestry, mining, livestock, and their affiliated industries. Of the development made in various fields of enterprises, manufacturing industry ranks first followed by agriculture, fishing, mining, forestry, livestock. Of these, the one that made the most rapid advancement since about 1912 is livestock industry, followed by manufacturing and mining.

The figures for the industrial output in 1930 were as follows:

Agricultural Products	114,700,000 yen	(26%)
Livestock & Dairy Products	13,500,000 yen	( 3%)
Forest Products	15,600,000 yen	( 4%)
Marine Products	78,500,000 yen	(18%)
Mining Products	46,000,000 yen	(10%)

## B. Agriculture

During the early part of the Meiji period agriculture was a very insignificant part of Hokkaidō's industry, fishing being the most important. Only a handful of settlers along the coastal areas of the peninsular region engaged in farming to supply their everyday needs. In 1870 the total arable land was approximately 2,000 acres. But since then the importance of agriculture gradually rose, and fifteen years later the arable lands increased to 75,000 acres, and further to 1,750,000 acres in 1917 and over 2 million acres in 1930. This last figure corresponds to about 9% of the total area of Hokkaidō. In 1939 it was estimated that 11% was under cultivation leaving about 4 million acres of potentially cultivable land. As for the farm households, there were about 180,000 in 1930. This corresponded to about 40% of the total number of families in Hokkaidō. Of this figure, 60,000 were independent farmers, 90,000 tenant farmers. The agriculture pattern of Hokkaidō is in many ways a contrast to that of old Japan. A land survey was conducted under the guidance of American technicians who were invited by the first governor to develop the island's resources during the early part of Meiji. Thus, the land was divided into a rectangular grid, patterned after the American system of land surveying. This is quite unlike the farm lands of old Japan where the land division is very irregular. The per capita land holding is much larger than that of in old Japan, being on the average 12-13 acres, or about five times as large as in other parts. The farming methods, too, differ considerably in that farm machineries are used instead of mere hand labor as is the custom in old Japan. The farm lands are predominantly dry fields which take up about 70% of the total cultivated areas, the balance being paddy fields. In spite of these limited rice fields with per unit yield of about one-third of that in old Japan, rice is still the most important single crop, producing over 2,800,000 koku per year. Other important crops are oats, wheat, barley, potatoes, bean, etc. The important industrial crops are peppermint, flax, pyrethrum, sugar beets, etc.

## C. Animal Industry

The natural setting of Hokkaidō is well-suited for raising of cows, horses, and other domestic animals. Unlike in old Japan, the cattle in Hokkaidō are mostly for milk and meat rather than for draft animals. About 36% of the milk cows (mostly Holsteins) are found here producing 34% of the country's milk. Also over half of condensed milk, three-fourths of the butter, and four-fifths of the cheese are manufactured, particularly in the Ishikari region. The horses are more numerous than the cows, and they are principally raised in the Hidaka, Tokachi, and Kushiro-Nemuro regions. The other animals are hogs and sheeps, but their numbers are insignificant.

#### D. Forestry

Hokkaidō has a forest coverage of about 16 million acres, approximately two-thirds of the total area of the Island and supplies about a sixth of the country's timber requirement and a fourth of the pulp. All parts of the Island have a high percentage of forest lands, although it is much depleted in the western region as a result of the expanding farm and pasture lands. To the west of the central divide, mixed forests of broadleaf and conifer predominates; but to the east, the trees are primarily conifer. The total forest products were valued at 12 million yen in 1930. The important species and their uses are as follows:

Fir, Spruce, Larch - For building, pulp, and paper  
Aspen - For match sticks  
Oak - For railroad ties

In addition to the above, charcoal is produced at the rate of about 250,000,000 pounds annually, of which 20,000,000 pounds are shipped to various parts of Japan.

#### E. Fishing Industry

Fishing was the first industry which attracted the people to the Island and it is still of major importance in the Island economy, ranking third after manufacturing and agriculture in its total valuation. The annual catch of fish and other marine products is valued at 78 million yen per year. The following figures give one some idea of the extent of this industry. (For the year 1930)

Number of fishermen	195,979
Number of fishing boats	59,160
Transient fishermen from other parts of Japan	40,674
Sardine catch	113,129,000 pounds
Herring "	725,088,000 pounds
Codfish "	123,461,000 pounds
Flatfish "	98,272,000 pounds
Salmon "	65,985,000 pounds
Konbu (Sea weed)	766,837,000 pounds
Fish meal	10,610,000 yen
Canned fish	1,870,000 yen

The species of fishes caught are varied. The waters adjacent to the peninsular region abound in warm water fishes, such as sardine, squid, tuna, bonita, etc. In the waters surrounding the eastern region, cold water varieties, such as cod, salmon, herring are plentiful. The value of the cold water fishes

caught is about five times that of the warm water fishes. The fishing villages are found all along the coast, but the important centers are Nemuro and Kushiro in the east, and Hakodate in the west.

#### F. Mining Industry

About 70 to 80% of the mineral resources of Hokkaidō is coal, supplying over 20% of the total Japanese coal output.

Coal fields are located in Kushiro area (Kushiro-tanden - 利尻路炭田) and along the western slopes of the central divide, Ishikari-tanden (石狩炭田). The potential deposit of the Island is about 4 billion metric tons of which  $\frac{3}{4}$  are in Ishikari-tanden. The annual production of coal from Ishikari-tanden amounts to about 6-7 million tons.

Iron ore (limonite 41.5%) is produced in Kutchan mines which in 20 years period from 1925-1945 amounted to 4,818,756 metric tons of which iron content was 1,999,774 metric tons. This amount together with that produced in Kamaishi in Iwate accounts for 70% of the total iron ore produced in Japan.

Iron sand mines are found along the western shores of Uchiurawan. These mines produced about 298,372 metric tons of iron sand in 1943-1945 - grade is about 50%.

Other mineral resources are sulfur, petroleum, manganese, copper, and silver, but the output of these is insignificant.

#### G. Manufacturing Industry

Manufacturing industry is by far the most important industry of the Island, accounting for 39% in value of the total industrial output. The distinguishing feature of the industry here is that local raw materials rather than those imported are transformed into useful goods in large factories using modern machineries. The manufacturing centers are mostly located in the regions to the west of the central divide. Around Sapporo-Otaru area, canned fish, fish meal and oil, flour, starch, beer and sake, and various dairy products are the chief items. Along the Iburi coast, paper, steel, and chemical industries flourish. Hakodate is also known for its industries relating to fisheries. In Tokachi around the city of Obihiro, tannin and sugar beet are the important products.

### V. Transportation

#### A. Land Transportation

1. Railroads connecting the important cities are relatively well-developed. The main lines are:

- a. Hakodate-sen ( 函館線 )  
From Hakodate to Asahigawa via Sapporo
- b. Nemuro-sen ( 根室線 )  
From Takigawa to Nemuro
- c. Soya-sen ( 宗谷線 )  
From Asahigawa to Wakkanai
- d. Muroran-sen ( 室蘭線 )  
From Oshamanbe to Iwamizawa via Muroran

2. In addition to the railroads, the Island has a well-developed motorcar network. Furthermore, in the remote region, the system of Ekitei is still retained.

#### B. Marine Transportation

Lack of good ports and adverse climatic condition have always hampered the development of sea transportation of the Island; however, there are a few open ports which we should know.

They are Hakodate ( 函館 ), Otaru ( 小樽 ), Muroran ( 室蘭 ), Kushiro ( 利尻 ) and Nemuro ( 根室 ). The scheduled run of railroad ferry which plies between Aomori and Hakodate keeps the Island in contact with the rest of Japan.

#### VI. Commerce

Otaru ( 小樽 ) and Hakodate ( 函館 ) are the two important commercial centers of the Island. The principal imports are petroleum, sugar, iron ores, etc., and the important export commodities are marine products, coal, lumber, paper, etc.

#### VII. Population

Hokkaidō has the least population of all the regions in Japan. The recent census report (1947) gives the total population of the Island as 3,852,850; density is about 43 per square kilometer. Most of the settlers are those who have emigrated from Ōu or Hokuriku regions, the poorer sections of Old Japan. The heaviest concentration of the people is found in Ishikari-heiya and becomes less dense as one travels eastward. The cities with population of 100,000 or over are Sapporo ( 札幌 ), Otaru ( 小樽 ), Hakodate ( 函館 ), and Asahigawa ( 旭川 ). In addition to the Japanese, there are about 15,000 Ainu who are mostly settled in Iburi ( 膽振 ) and Hidaka ( 日高 ) areas. Although the Ainu still retain some of their ancient customs they are gradually becoming Japanized.

## VIII. Cities and Towns

### A. Hakodate (函館)

This city which one can reach in about four hours from Aomori on a ferry, is the entrance to the island of Hokkaidō. This was one of the five ports which were opened to foreign residence after 1854. It is now an important commercial as well as industrial center, the outstanding trading item being marine product. Other important manufactures are cement, hempcloth, fish nets, etc. The foreign trade of Hakodate in 1938 amounted to about 40 million yen. The port also serves as a base port for deep-sea fishermen.

### B. Otaru (小樽)

This city which is located at the western edge of Ishikari-heiya is a port city as well as the financial center of the Island. Its principal exports are beans, lumber, and coal. The coaling dock is said to be capable of accommodating four ships at once. The foreign trade which passed through this port was about 40 million yen in 1938.

### C. Muroran (室蘭)

This is an important industrial city. Here is located the steel mills second only to Yawata Steel Works in Fukuoka. Some 17-18% of the pig iron and 1-5% of the steel manufactured in Japan originate in plants here. The city also has a good port whose foreign trade in 1938 amounted to about 10 million yen, with imports (ores, coal, and machineries) exceeding export (coal and sulfur). However, the domestic trade which passes through this port is many times as large as its foreign trade. The chief items of domestic exports are coal, pulp, and paper.

### D. Tomakomai (苫小牧)

Here is located one of the largest paper mills in Japan. About 90% of the newsprint paper is manufactured here.

### E. Sapporo (札幌)

This is the seat of the Hokkaidō regional government. The city was laid out in 1841 like an American city with streets lining the city in grid pattern. It is also an industrial city with breweries, condensed milk factories. An outstanding institution is the Hokkaidō Teikoku Daigaku whose first president was Colonel Clark, an American.

F. Iwamizawa ( 岩見沢 )

An important rail junction. Also the center of the coal fields. The largest mine at Yubari, produces 6,000 metric tons of coal a day.

G. Asahigawa ( 旭川 )

This inland city is the center of rice culture for the Island, and a fast growing city. It was also a military center, being the home of the 7th Infantry Division.

H. Obihiro ( 帯広 )

The agricultural center in Tokachi-heiya. This is the center of beet sugar industry as well as horse-raising.

I. Kushiro ( 釧路 )

A principal port city in the Kushiro area. Outgoing cargoes consist mainly of coal, lumber, pulp and paper, and marine products, and to a lesser extent, farm products.

J. Nemuro ( 根室 )

This town is situated in about the center of Hanasaki-hantō facing Nemuro-wan. It is a fishing port and an important hopping point to Kurile.

K. Abashiri ( 網走 )

The only worthwhile port on the Kitami coast. It is noted for fishing and manufacturing of match sticks.







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